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Report of The SECRETARY of AGRICULTURE

1964

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Department of Agriculture
Washington, D.C.

THE PRESIDENT
The White House, Washington, D.C.

DEAR MR. PRESIDENT: It is my privilege to present to you this report on the services rendered by the Department of Agriculture to our farm and rural people and the entire Nation during the past year.

You recently described the mission of the Department in these terms: "It is time that the Department of Agriculture, which has served the farmers and the consumers of America so well for over a century, assume a full leadership role within the Federal Government to help rural America, as a whole, attain its rightful place within the Great Society."

This clear and compelling mandate we accept wholeheartedly. In the pages of this report you will find a brief account of our current activities in contributing to a rural renaissance, as well as in serving our family farmers, and providing a multitude of aids to help consumers everywhere in the Nation benefit more fully from the Age of Abundance.

On behalf of all the devoted public servants who work with me in the USDA, I take pleasure in submitting my annual report as Secretary of Agriculture for the year 1964.

Orville L. Freeman

ORVILLE L. FREEMAN,
Secretary of Agriculture.

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REPORT OF

The Secretary Of Agriculture

1964

AGRICULTURAL POLICY IN THE AGE OF ABUNDANCE

Three facts dominated the agricultural picture in 1964.

First is the fact of abundance. In the 10 years just past production per man-hour in farming almost doubled. In 1964, one-third fewer people on farms, harvesting one-seventh fewer acres of cropland, produced one-fifth more total output than 10 years earlier.

Our agriculture not only produces more than we can use, but more than we can efficiently share at home and abroad. The Age of Agricultural Abundance is firmly established.

Abundance has brought bargain-priced food to consumers. Yet as American housewives pile their supermarket shopping carts high with everything from meat and potatoes to cosmetics and floormops, all too few are aware of agriculture's role in enabling their families to eat better for a smaller part of their income than ever before in history. Recognized or not the fact remains: Agricultural abundance is here—and our aim is to insure it is here to stay.

Second is the fact of rural poverty. While abundance brings food to consumers at bargain prices, it creates problems of surplus and depressed income for farmers. Prices received by farmers go down, while prices paid by them continue to rise. The 20 percent larger output of 1964 brought farmers less than 4 percent more income. But even if the prices of farm products were what they ought to be—which they are not; and even if the farmer had parity of bargaining power in the marketplace—which he does not; poverty would still be deep-seated in rural America.

Millions of people would still be backed up on farms too small to produce enough to provide a decent living. Levels of education and opportunities for young people growing up in rural America, on the farm and off, would still be inferior to those in the cities and their suburbs. Public services of all kinds would still lag far behind those in urban areas. The wages and fringe benefits of farm laborers, including migrants, would compare poorly with those of industrial workers in the cities. The problem of depopulation of the countryside would still be with us. Rural poverty is here—and our aim is to insure it is not here to stay.

Third is the fact of increasing consumer need for agricultural services. A burgeoning population, added leisure, and the growing practice of taking extended vacations are placing new demands on our natural resources. People in cities and suburbs evidence an expanding appetite for outdoor recreation, relaxation, and play which only land, water, forests, and the green countryside can satisfy. We see this illustrated in the use of our National Forests. In 1954 total visits to the forests for hunting, fishing, camping, hiking, and other purposes numbered about 40 million. In 1964 these visits totaled 135 million.

But there is more to this fact. American consumers want their traditional agricultural products—food, clothing, shelter—not only reasonably

priced; they want quality, variety, and convenience. They want their products graded and inspected according to quality standards. They want new and improved foods, and not only foods but fabrics and woods, too. They want abundance to be shared with the less fortunate. They want health protection, new methods of controlling insects, safeguards in the use of pesticides. They want assured food supplies and protection for productive resources in time of national emergency.

So we have the third basic fact: Increasing need for goods and services other than food and fiber, which are produced by or closely associated with agriculture.

Today's Farm Policy Is Broader

Recognition of these three dominant facts constitutes the basis of our current U.S. agricultural policy, the new and broader policy of the 1960's. Today's policy is one of distinct contrast with the narrow concept of earlier decades when people viewed the "farm problem" in terms of one dimension—commodities; and in terms of one segment of society—farmers.

Without minimizing the importance of balancing commodity supply and demand, we now give increased consideration to the human problems of people on farms too small or otherwise incapable of providing an adequate living; to rural communities whose survival depends on a diversified and broadened economy; and to the development and wise use of those immense reservoirs of resources which agriculture, land, and water offer to satisfy deep-seated consumer needs quite apart from the basic wants of food, clothing, and shelter.

We now see clearly that abundance becomes a problem only when we do not use it wisely. We now recognize that in vigorous programs of food distribution we have the key to making a nutritious diet available to all our people. We are increasingly aware that a sustained and energetic program of trade and aid brings benefits of great value in our relations with other nations.

The agricultural policy that has emerged for the Age of Abundance includes not merely one but no less than three broad dimensions.

It consists of:

1. Programs that serve and protect the commercial family farm and our traditional system of family farm agriculture. For want of a better all-inclusive term we sometimes group these under the heading of *commodity programs,* through admittedly this dimension is broader than commodities. These programs stabilize prices and income, adjust production to needs, conserve and develop land and water resources for agricultural use, protect farmers against the unmitigated effects of natural disasters, and promote orderly marketing of farm products. We treat them under the title PROTECTING THE FAMILY FARM.

This dimension logically includes our efforts to develop new or expanded markets for our farm products abroad. However, because these efforts comprise a kind of entity in their own right we treat them as a separate section of this report entitled FOREIGN TRADE AND AID.

2. Programs to promote and assist the revival of opportunity in rural America through the development of human and natural resources in rural communities. Though these programs make a direct attack upon

the spreading cancer of poverty in rural areas, they are, more than this, intended to enable *all* people in the country to move toward parity of opportunity with people in the cities. This *community* dimension we treat under the heading TOWARD A RURAL RENAISSANCE.

3. Programs to serve all the users of food, fiber, and other agricultural goods and services. These include activities to assure clean, high quality food and other agricultural products, protection against insect pests and diseases, regulatory measures that benefit all consumers, and dozens of services rendered by agriculture in general and the U. S. Department of Agriculture in particular. This *consumer* dimension we discuss under SERVING ALL CONSUMERS.

The Record in Brief

How have we been doing in terms of these dimensions of our current agricultural policy? I will outline here a few major accomplishments before expanding upon the record in the body of this report.

New commodity programs have strengthened farm income, reduced surpluses, and cut taxpayer costs. Net farm income from 1961 through 1964 averaged $900 million a year higher than in 1960. Income per farm in 1964 was 23 percent higher than in 1960.

The huge grain surpluses have been brought down to manageable levels. The wheat carryover which stood at 1.4 billion bushels in 1961 was reduced to 900 million bushels in mid-1964 and will remain at about that level in 1965. The feed grain carryover, totaling 3.2 billion bushels in 1961, will be down to 2.2 billion bushels by the close of the 1964-65 marketing year. These reductions of about 1.5 billion bushels have provided cumulative Government savings to date of about $600 million.

Trade and aid programs helped farm exports in fiscal 1964 reach a record high of $6.1 billion—about 20 percent above 1963 and 35 percent more than the level of 4 years ago.

Rural America is being revitalized. From July 1, 1961, to November 1, 1964, 108,844 persons serving on 2,138 rural areas development committees had completed, or were working on, 13,505 projects. Their objectives were to create new jobs, expand economic opportunity, and improve living conditions in rural America. Combining local resources with aid provided by Federal and State governments they carried out projects ranging from privately financed industrial expansion and organized community recreation development to the marketing of gift baskets of jelly. These efforts created 412,000 new jobs as well as many thousands of man-years of employment in occupations associated with these projects.

Nearly 10,000 local rural areas development projects have been completed during the past 3½ years, and the pace is accelerating. About 6,000 projects were completed in 1964 and an even larger number is in prospect for 1965.

Since 1960, over 600 rural communities have been aided in establishing modern water facilities. About 400 new small upstream watershed projects have been authorized. These projects have immense significance for future rural community development.

A record total of 1.5 million farm and rural residents benefited from USDA-supervised credit in 1964. This credit included loans totaling $133 million in fiscal 1964 to provide better housing for over 50,000 farmers,

farmworkers, rural residents, and senior citizens. During the past 2 years we have aided more than 26,000 individual landowners and operators to install one or more farm or rural recreation enterprises. We are assisting rural people to make full use of the Economic Opportunity Act and other tools for economic progress.

Agriculture's services to consumers have been broadened and expanded. Agricultural abundance is now shared more effectively than ever before with the needy and the Nation's children. Food distribution programs helped improve nutrition for one out of every five Americans in 1964. Our research continued to develop new food, clothing, and wood products for better living. Grading, inspection, and USDA-assisted marketing improvements helped make and keep available to American consumers the world's most abundant, varied, cleanest, most convenient, and high-quality food supply.

The serious problem of safeguarding the Nation against diseases and insect pests introduced from abroad is receiving new emphasis. Special attention is being given to the development of nontoxic methods of insect control as well as to the safe use of pesticides. We are building each year in the National Forests campsites, picnic areas, and other recreational facilities, sufficient to serve many thousands of recreation seekers. Through publications, TV and radio, exhibits, and close cooperation with the President's Special Assistant for Consumer Affairs, we are making USDA consumer services more accessible to all the American people.

The pages that follow show how the various agencies of the U. S. Department of Agriculture during 1964 blended their efforts and accomplishments in service to agriculture, rural America, and 193 million American consumers.

PROTECTING THE FAMILY FARM

The abundance of food and fiber we enjoy today is the product of the American family farm system of agriculture, the most responsive and effective agricultural producing system the world has ever seen. It is to protect this system that the Nation has devised and maintained agricultural commodity programs. Without such programs to protect and stabilize family farm income while agriculture adjusts to the stresses and strains created by its own productivity, the very system which has made abundance possible might be crippled, even destroyed.

There are some who say that agricultural commodity programs are useless, that the United States has tried them for 30 years with little success. This is untrue. The Nation did, indeed, begin to use commodity programs in the 1930's; these were designed to meet a national emergency—the great depression—and they helped tremendously. During the 1940's the programs were changed to serve the primary need of greater production—"food to win the war and write the peace"—and their value is reflected in agriculture's magnificent response.

However, our first real experience with commodity programs as a tool to promote the wise use of abundance did not begin until about a decade ago. Then, for the first time, the Nation began to experiment with com-

modity programs as an instrument to bring balance to an explosively productive agriculture during a relatively peaceful and prosperous era.

As used during the 1950's, these programs were by no means an unqualified success. Employed with faint heart, they were too little and too late to stem the tide of surplus and halt the downslide of farm product prices. Yet without them the farmer's situation would have been worse by far.

New Programs Needed to Avert Disaster

Among our first actions upon taking office in 1961 were efforts to strengthen the existing programs by raising the price supports of some commodities to more realistic and therefore more effective levels. We followed these efforts with recommendations for new programs covering grains.

My initial deep worry as Secretary of Agriculture was that several hundred million bushels of grain would rot on the ground because of no space in which to store it. This was no idle fear. If production merely continued at current rates there was no question but that the grain surplus would soon overflow all available storage capacity.

Actually, however, the mental picture of grain rotting on the ground was not nearly so disturbing as the realization of the deep trouble for the whole agricultural economy which such a condition would symbolize.

The most serious immediate problem facing us was the huge feed grain surplus. Corn supplies were up to 2 billion bushels; grain sorghum stocks were enough to carry us for a full year and a half. We were nearing the danger point at which these massive supplies would break the restraining dam and flood the market. Every sign was ominous: Feed grain prices had been slipping lower each succeeding year. We were entering a new crop year with all available storage space already in use. Storage costs were becoming a national scandal. New bin sites and new grain elevators dotted the landscape everywhere. Unless legislation could swiftly provide an effective new program, stocks would mount another 300 million to 400 million bushels that year and the consequences for grain producers, livestock farmers, the grain industry, and rural America in general could be disastrous.

An emergency feed grain bill was passed by the Congress early in 1961. It was the first major piece of legislation enacted that year. It set up a voluntary program which provided acreage reduction and price supports for corn and grain sorghum and authorized payments to farmers for diverting feed grain acreage to soil-conserving uses. This program now stands as one of the most popular and effective ever available to farmers. The Congress has continued it in effect through 1965, applying it to corn, grain sorghum, and barley.

Wheat was another crucial problem. Wheat farmers had a program that called for acreage allotments and price supports. But bigger wheat surpluses, further expansion of storage, and eventual price disaster were built-in effects of that program. Already we had enough wheat on hand to fill our domestic needs for more than 2 years. Already surplus wheat filled all available storage space—and we could expect 100 million to 200 million additional bushels to be seeking storage space each year. As with feed grains, here was a threat, high looming and close at hand, to wheat producers, the wheat industry, and the entire rural community.

The Congress enacted a new emergency program for wheat to take effect on the 1962 crop. A year later it was extended to cover the 1963 crop. In addition to the emergency program, the Congress approved a long-range program which, if accepted by two-thirds of the producers voting in a referendum, would become applicable to the 1964 crop. However, in the national referendum held in May 1963, wheat growers failed to approve the long-range program. This left them with price supports too low to prevent a serious drop in prices and with no effective means of preventing surplus buildup. It meant that producers faced the loss of about one-fourth of their total wheat income, or a drop of about $600 million in 1964 income compared with 1963.

A new voluntary wheat program in the spring of 1964 averted this disaster. It made wheat growers who did not exceed their individual allotments (based on a national allotment of 49.5 million acres) eligible for wheat price support at 50 percent of parity, or about $1.25 a bushel, plus domestic allotment certificates valued at 75 cents and export allotment certificates worth 25 cents. This meant that participating farmers received a return averaging about $2.00 a bushel on wheat used for food and a smaller return for exported wheat. The net result of the 1964 program was the restoration of about $450 million of the impending $600 million cut in wheat returns. With minor changes the program is being continued in 1965.

What the Commodity Programs Achieved

The new commodity programs had a triple objective: To improve or at least maintain farm returns; to reduce excess supplies, and to cut Government costs.

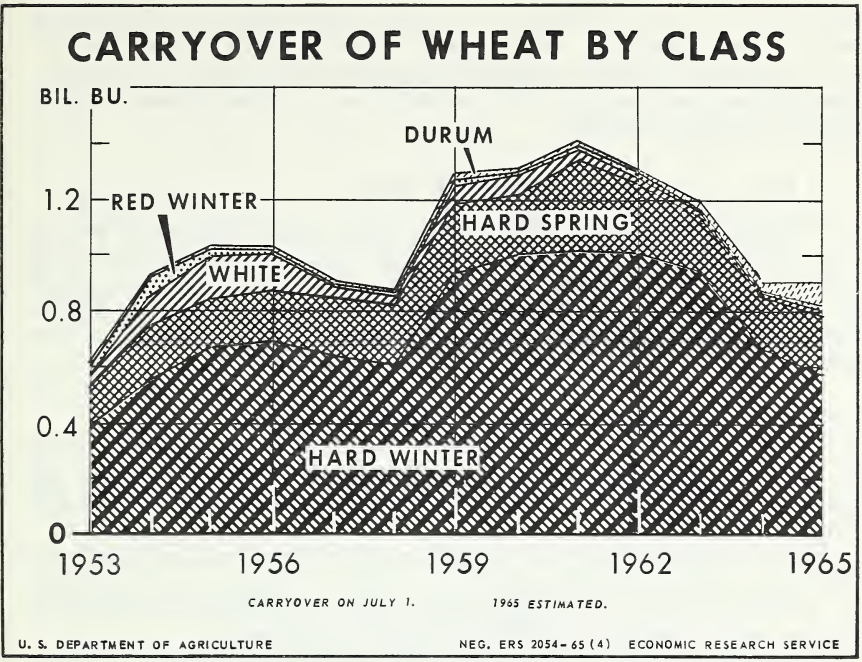
What degree of success have they had since 1961?

Wheat Carryover Reduced 36 Percent

The wheat carryover as of July 1, 1961, totaled 1.4 billion bushels, an alltime high, far above reasonable reserve levels. On July 1, 1964, the carryover was down to 900 million bushels—a reduction of 36 percent. Because of record world wheat production in 1964 and in consequence a decrease in export demand, our carryover on July 1, 1965, probably will still be about 900 million bushels. Meanwhile, however, the general level of farm income for wheat will have remained remarkably stable.

If wheat had been grown on the acres diverted from production by the 1962, 1963, and 1964 programs, the cumulative output of these acres could have been close to 500 million bushels. Instead, carryover was reduced by this amount. In effect, therefore, the programs created a "billion bushel gap" between the actual carryover and that which could otherwise have been reasonably expected.

Sales of Commodity Credit Corporation-owned wheat were of great importance in the orderly transition between the 1963 and 1964 wheat programs. In carrying out its responsibilities, CCC walks a tightrope between farmers' need for higher income and the necessity of maintaining reasonable food prices to consumers. Recognizing the many and sometimes conflicting interests involved, the Congress has established


CARRYOVER OF WHEAT BY CLASS
BIL. BU.
1.2
0.8
0.4
0
DURUM
RED WINTER
HARD SPRING
WHITE
HARD WINTER
1953
1956
1959
1962
1965
CARRYOVER ON JULY 1.
1965 ESTIMATED.
U. S. DEPARTMENT OF AGRICULTURE
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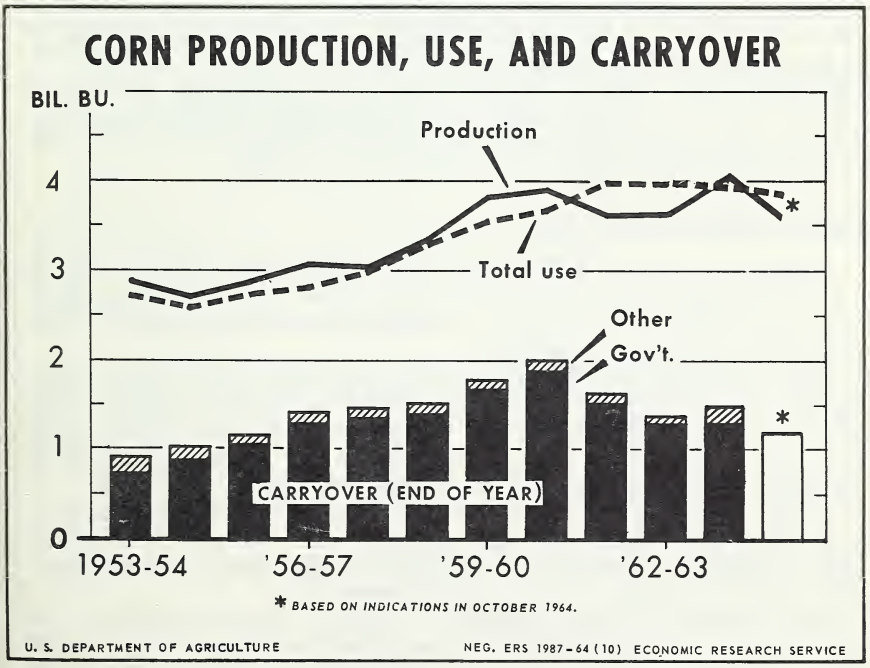

CORN PRODUCTION, USE, AND CARRYOVER
BIL. BU.
4
3
2
1
0
Production
Total use
Other Gov't.
CARRYOVER (END OF YEAR)
*
1953-54
'56-57
'59-60
'62-63
* BASED ON INDICATIONS IN OCTOBER 1964.
U. S. DEPARTMENT OF AGRICULTURE
NEG. ERS 1987-64 (10) ECONOMIC RESEARCH SERVICE

guidelines for the disposition of surplus commodities in Government hands. These guidelines were carefully followed. CCC wheat has been available to fulfill domestic requirements within the pricing-pattern guidelines set by the Congress. An orderly and a stable domestic wheat market has been the result.

Feed Grains Program an Outstanding Success

Having achieved major reductions in Government stocks and lowered costs to taxpayers, and with farm income from feed grains considerably higher than in preprogram years, the feed grain program must be judged an outstanding success. By the beginning of the new marketing year in 1965, we expect the carryover of feed grains to be about 27 million tons below the alltime record of 85 million tons in 1961.

This dramatic reversal in overproduction has sharply cut costs for Government acquisition and carrying charges.

Moreover, in the 4 crop years, 1961–64, feed grain farmers received $2.5 billion more than they would have if 1960 support prices had remained in effect and they had continued to harvest as many acres as they averaged in 1959–60.

These achievements are especially remarkable in the light of the phenomenal rise in yields from 1961 to 1963. Per-acre yields increased an average of nearly 4 bushels a year. While 1964 yields were generally smaller, they remained well above the 1958–62 average.

But for the 1964 program—through which more than 1.3 million farmers diverted over 30 million acres of feed grain cropland—extra acreage overproduction could have been disastrous. With nearly 6 million acres coming out of the old Conservation Reserve and no incentive to divert, farmers would surely have harvested as much as in 1959–60. Under the price support programs the excess production would have wound up in Government hands. Costs for storage and handling in just 1 year could have jumped up to and beyond the 1960 level. From this viewpoint alone, the worth of the 1964 program is clear.

Soybeans—Big Income Earner

Soybeans are now a $1½ billion crop. Higher price support ($2.25 a bushel compared with $1.85 in 1960) coupled with increasing exports have helped make soybeans the Nation's third leading crop in value exceeded only by cotton and corn.

From less than 300 million bushels in the early 1950's, soybean production soared to almost 700 million bushels in 1963 and 1964. Yet, despite more than doubled output, demand has kept pace. There never has been a serious surplus of soybeans in the United States. For 1964–65, supply and demand may achieve full balance.

World trade in oilseeds, oils and fats in 1964 was highlighted by a new record of 1.7 million tons in exports of U.S. soybeans and soybean oil. U.S. exports accounted for 95 percent of the world total, compared with about 75 percent in the 1955–59 period.

More than 90 percent of all U.S. exports of soybeans, soybean oil and soybean meal are sold for dollars. Thus soybeans contribute substantially towards a more favorable international balance of payments for the Nation.

Peanut Quality-Control Program

A new quality-control program, launched on the 1964 peanut crop, enables the industry to market only the best grades for peanut butter, peanut butter filled crackers, packaged and roasted kernels, peanuts toasted in the shell, and food uses generally. Lower qualities are diverted to other suitable uses.

Circumstances leading to the new program stemmed from the discovery in England during 1960 that a toxic substance, "aflatoxin," was produced by mold in peanut meal and that this substance in feed was harmful to turkeys.

Research by USDA and the Department of Health, Education, and Welfare showed that the mold is closely related to the small proportion of damaged kernels found in the peanut crop and concentrated in small immature kernels of lower quality.

Although the industry normally removes damaged kernels from use in food products, some poor quality peanuts have in the past moved into the market on a "price basis." These facts led USDA and the peanut industry to cooperate in establishing the new quality-control program.

Previously, USDA had acquired peanuts produced in excess of domestic edible requirements, diverting them into the domestic market for crushing or for export. Most of the peanuts thus acquired under the price support program were of good quality.

Under the new program, shellers buy from farmers only the best grades of farmers stock (unshelled) peanuts, while the Department acquires the lower grades. The kernels from the farmers stock are separated into various grades and qualities of "shelled" peanuts. Again, the Department acquires the lower grades and qualities.

The new program also includes a system of handling and testing peanut meal. The Department removes from feed use any meal showing the presence of aflatoxin, diverting it to nonfood uses.

No harmful materials are contained in refined oil produced by normal processes.

The new quality control program protects consumers and facilitates marketing of the crop. It has additional value in that it reduces to some degree the cost of the price support for peanuts.

CCC Price Support Investment Down Slightly

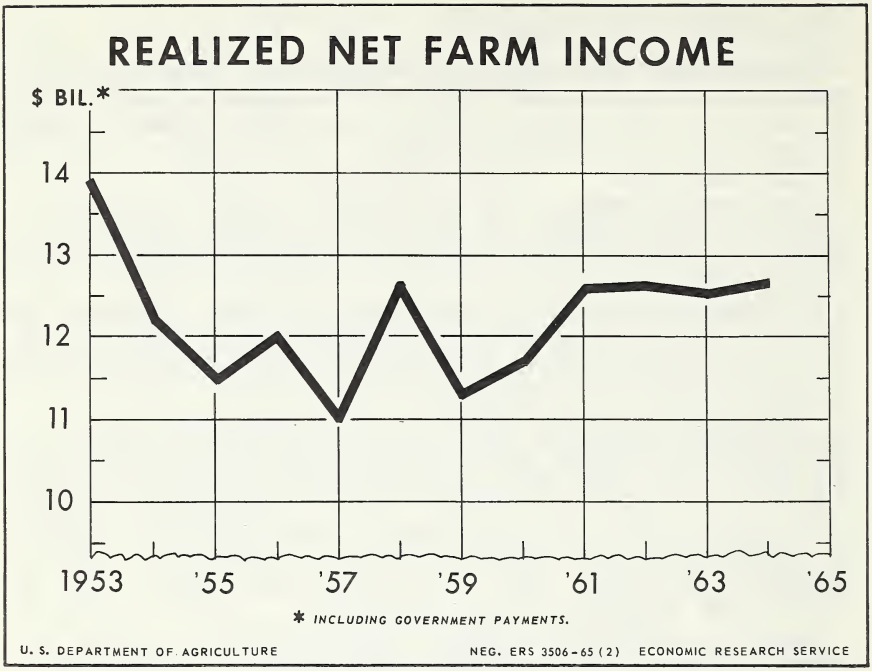
The Commodity Credit Corporation investment in commodities under price support loan and in inventory totaled a little less than $7.1 billion at the end of fiscal 1964. This compared with nearly $7.3 billion a year earlier.

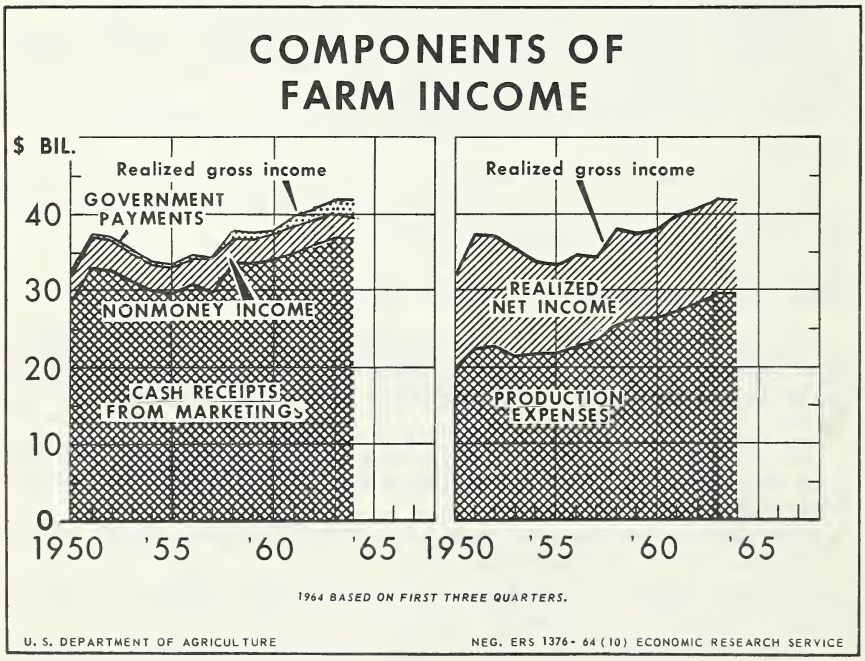
The investment in wheat was $1.8 billion, down more than 20 percent from the $2.3 billion of a year earlier, and nearly $1 billion less than the peak of June 30, 1961.

Investment in the five feed grains, $2,489,000,000, was slightly above 1963, but nearly $1 billion below 1961.

The dairy products inventory investment of $174 million was down nearly 60 per cent from the level of June 30, 1963.

On the other hand, CCC had sharply increased investments in cotton and tobacco. Cotton totaled $1.7 billion on June 30, 1964, an increase


REALIZED NET FARM INCOME
$ BIL.*
14
13
12
11
10
1953
'55
'57
'59
'61
'63
'65
* INCLUDING GOVERNMENT PAYMENTS.
U. S. DEPARTMENT OF AGRICULTURE
NEG. ERS 3506-65 (2) ECONOMIC RESEARCH SERVICE


COMPONENTS OF FARM INCOME
$ BIL.
Realized gross income
GOVERNMENT PAYMENTS
NONMONEY INCOME
CASH RECEIPTS FROM MARKETINGS
40
30
20
10
0
1950
'55
'60
'65
Realized gross income
REALIZED NET INCOME
PRODUCTION EXPENSES
1964 BASED ON FIRST THREE QUARTERS.
U. S. DEPARTMENT OF AGRICULTURE
NEG. ERS 1376-64 (10) ECONOMIC RESEARCH SERVICE

of $280 million over 1963, and tobacco totaled $667 million, up about $230 million.

Feed grains, wheat, cotton, tobacco, and dairy products made up about 96.3 percent of the CCC investment total. The remainder was distributed among 17 other commodities with soybeans, flaxseed, rosin, peanuts, and dry beans accounting for the major portion.

Commodity Programs Protect the Family Farm

Largely as a result of the new and improved commodity programs U.S. farmers averaged $900 million a year more net farm income during 1961–1964 than they received in 1960. Realized net income per farm has climbed 23 percent—from $2,960 in 1960 to a record high of $3,642 in 1964.

Viewed from another angle, the value of these programs stands out even more clearly. Careful studies by universities and Congressional committees have estimated the effect on farm income of abandoning commodity programs. The consensus is that without programs to adjust production and support farm product prices, net farm income during the past three years would have dropped to less than half. Instead of the approximately $12.6 billion of net income earned by American farmers each year since 1961, income would have collapsed to about $6 billion.

A $6.5 billion loss of annual income would wreak almost indescribable havoc on agriculture and rural America. Nor would the catastrophe be confined to farm and rural America. Like an economic avalanche it would descend on the entire American economy, sweeping away jobs and factories, shops and stores, bank accounts and savings in ever widening reverberations of destruction.

So long as overproduction and low prices are the silent companions of abundance, commodity programs will be essential to the family farm system of agriculture. So long as agriculture is subject to the volatile effects of a massive scientific and technological revolution, so long as productivity per farmworker grows 6 percent and more each year, so long as we continue to produce more each year from less land with fewer people, commodity programs will be necessary. They are not welfare programs, but essential tools of adjustment that serve the well-being not only of the family farmer but of every American citizen.

Other Programs and Services to Improve Farm Income

Besides the activities already mentioned, the Department administers a number of other programs and services designed to strengthen farm income either by giving farmers more "economic muscle" in the marketplace or by making the marketing of agricultural products more orderly, efficient, and competitive.

Marketing Agreements and Orders

These programs are initiated by farmers and administered by the Department to assure orderly marketing, stable prices, and adequate supplies. They are presently in use for milk and certain fruits, vegetables, and tree nuts.

More than 53 billion pounds of milk, which is equivalent to the milk supply for about two-thirds of all the nonfarm people of the United States, were provided by farmers operating under milk marketing orders in fiscal 1964.

Marketing orders were in effect for fruit, vegetable, and tree nut crops grown in 23 States. Forty percent of the farm income from all our fruit and vegetable crops was derived from products marketed under these orders.

Buying and Eating Up Surpluses

To help stabilize farm prices by making food abundance available more widely to schoolchildren and the needy, the Department buys and distributes perishable surplus foods. These purchases in 1964 totaled $260 million.

The biggest purchasing program of the year was undertaken to help beef producers who were caught in a strangling cost-price squeeze brought on by overproduction. During the 1964 calendar year we bought and distributed to schools, institutions, and needy persons 403 million pounds of beef at a total cost of $223 million.

Other purchases included turkeys, eggs, butter, cheese, nonfat dry milk, lard, peaches, plums, cranberries, apples, potatoes, date pieces, olives, and peanut butter.

Matching Fund Program

Marketing improvement projects are carried out by State departments of agriculture under a Matching Fund Program which provides USDA funds and assistance. During fiscal year 1964, our Agricultural Marketing Service (now Consumer and Marketing Service) helped 43 States plan and carry out 138 such projects and paid up to half of their cost.

Notable among 1964 accomplishments was the successful regional egg promotion campaign conducted by New York and 6 New England States during March.

The matching fund program helped the Virginia Department of Agriculture play a prominent role in the first shipment of U.S. live feeder and slaughter cattle to Europe in more than 50 years. Cattle from 6 States were shipped from Norfolk, Va., to Italy.

Market News

Federal-State market news services help farmers decide where and when to market their products to best advantage. This of course also helps keep a steady supply of products flowing to the right markets at the right time.

Market news reports on supplies, demand, and prices for farm products are disseminated daily through commercial news media, radio, television, newspapers, and the trade press, as well as through mailed reports.

During 1964, 50 additional radio stations and 25 additional newspapers joined the ranks of the hundreds already broadcasting and publishing market information. Over a million mimeographed market news reports were mailed to livestock interests, about a million to tobacco producers, and 1.4 million to the cotton industry, plus a multitude of reports to those interested in grains, fruits, vegetables, dairy, and poultry.

Regulatory Services

USDA administers more regulatory statutes than any other Government department. These assure fair play and fair competition in the marketplace for several commodities, and safe storage of farm products in licensed warehouses. They protect those who grow and market farm products as well as consumers.

In administering the Packers and Stockyards Act, which regulates trade in livestock, meat, and poultry, we work closely with State governments and the livestock industry. We strengthened the financial protections for producers through new regulations and efforts to counteract unfair meat merchandising practices and insure prompt payment for livestock.

The Perishable Agricultural Commodities Act requires fair trading practices and accurate labeling as to grade, size, State of origin, and net weight for fresh and frozen fruits and vegetables. Checking on compliance with these requirements, USDA inspectors in fiscal 1964 visited 883 firms and examined more than 3,000 carlots of produce—25 percent more than a year earlier.

In enforcing the Federal Seed Act—a truth-in-labeling law—we made 43,000 separate tests on more than 16,000 samples of seed—an increase of 13 percent over the previous year. When this Act was passed 25 years ago one interstate shipment of seed out of every four violated the law. Now less than one shipment in 10 is found in violation, and violations are generally of less serious nature than used to be the case. We also test seed offered for import into the United States. In fiscal 1964 we turned back about 3½ million pounds of seed because of low quality or false labeling.

Commodity Exchange Authority

Our Commodity Exchange Authority safeguards both producer and consumer interests by maintaining free and competitive pricing in the commodity futures markets.

Total trading in the regulated futures markets at Chicago, New York, and other exchange centers has increased more than one-third since 1960; and in the futures markets for grains and soybeans the increase is nearly two-thirds.

To prevent price manipulation, wash sales, cheating, fraud, and other violations, we exercised daily surveillance of 903 large traders (daily average) in 1964, compared with an average of 786 in 1960. Our registrations and audits of commodity brokerage operations also increased.

Strengthening Farmer Cooperatives

Much of farmers' economic strength is provided through cooperatives. Farmers market more than $10.8 billion worth of their farm products and obtain over $2.7 billion worth of supplies through these associations, according to latest statistics compiled by Farmer Cooperative Service. The savings achieved by these activities add about half a billion dollars a year to farmers' income.

FCS is responsible for the annual survey of marketing, farm supply,

and related service cooperatives. This survey provides the only source of continuing nationwide information on trends in the numbers, memberships, and business volumes of these cooperatives.

During the past year, more extensive use has been made of the annual survey data than ever before. With the present emphasis on the importance of cooperatives in their contribution to our rural economy, use of statistical information on cooperatives has been expanded among other agencies of the Department. Particularly significant, however, is the increased use of this information by cooperative managements in helping them make decisions on how to operate more effectively in their basic task of raising rural income.

The basic job of FCS is to help farmers operate and use their cooperatives more effectively and thus improve their incomes.

As one example of this work, research on cooperative purchasing by farmers has indicated ways to reduce the cost of supplies, a steadily rising cost for farmers. A study of 13 successful fertilizer bulk blending plants in the upper Midwest showed how they provided fertilizer adapted to members' farms based on soil tests, soil fertility planning, blending materials, and spreading the plant food on the farm. Two other studies explored the possibilities of savings in labor and money for farmers through bulk handling of feed and seed.

Many FCS studies point the way to impressive gains through cost-saving improvements. Some examples:

An FCS study of lamb pooling has provided thousands of midwestern and southeastern farmers with information useful in improving the selling methods of their cooperatives. Farmers who pooled their animals for sale received from 50 cents to $5 per hundredweight more than if they sold lambs individually in small ungraded and nonuniform lots.

Utah farmers will realize additional income of $100,000 to $150,000 a year as a result of the merger of two cooperatives and a feed company. Over 4,000 farmers will be directly affected.

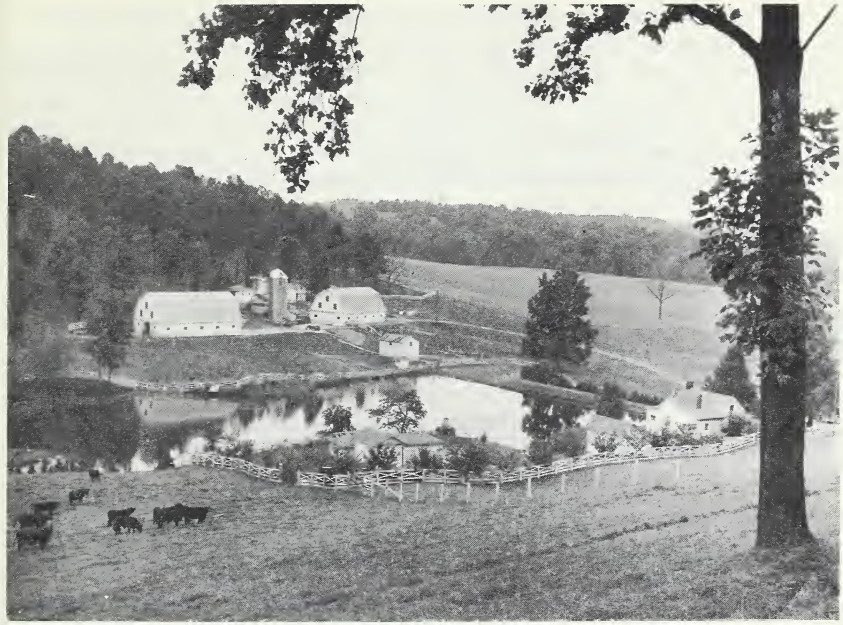
Cotton farmers are benefiting from reduced operating costs at their cooperatives. Analysis shows that ginning costs at single-gin plants range from 13 cents to $1.07 lower per bale than at two-gin plants when volume per gin is equal.

Extension Service also works closely with cooperatives on organization, consolidation and mergers, and in analyses of individual management problems. A cooperative director training program, conducted by Extension at 296 seminars in 41 States, was attended by nearly 12,000 interested persons.

Conserving and Improving Natural Resources

The U. S. Department of Agriculture is the principal Federal guardian of most of the Nation's renewable natural resources. Seventy percent of the area of the 48 States comprising the U.S. mainland and 59 percent of the land and water area of the 50 States is privately owned. On these properties we help millions of individual owners and operators carry out programs of soil, water and timber conservation. In addition, the Forest Service administers a vast area of publicly owned land comprising the National Forests.

While conservation is becoming more and more consumer and community oriented, many USDA conservation programs are still primarily aimed at strengthening and improving our family farms and the family farm pattern of agriculture. These programs help farmers adjust land



Sparkling farm ponds provide both water and beauty

A farm wildlife area for controlled hunting

use for increased income, while simultaneously assuring a lasting base of soil, timber, and water resources for future needs.

During 1964 more conservation plans were prepared by soil conservation district cooperators; more contracts were signed in the Great Plains Conservation Program; more watershed projects came under construction; more conservation practices were applied to the land; and more forestry improvements were made than in 1963 or in most previous years.

Some 1964 Conservation Accomplishments

Our Soil Conservation Service helped landowners prepare 108,380 conservation plans in 1964, 3 percent more than in 1963. About one-third of the Nation's farms now have detailed conservation plans.

We provided onsite services to 1,123,801 cooperators in 1964, an 8 percent increase.

In the Great Plains Conservation Program, landowners signed 3,719 new contracts covering 5,453,644 acres in 1964, compared to 2,852 contracts on 5,051,330 acres in 1963.

As of June 30, 569 small watershed projects were in operation, compared to 473 a year earlier. In these and other watershed protection activities, 844 floodwater retarding structures were installed, compared to 834 the previous year.

Most of the major conservation practices showed increases of 10 to 30 percent or even more. Farmstead windbreak plantings increased 80 percent and conservation cropping systems 34 percent over 1963 acreages.

Cropland Conversion

The Cropland Conversion Program, which was first conducted on a trial basis in 1963, is a special effort to help farmers convert land from row crops and small grains to such long-range conservation and income-producing use as woodlands, grass, wildlife habitat or recreation.

Under the 1964–65 program, 101 counties in 36 States have been designated as test areas. They will provide a broad cross-section of experience with different types of farms, land, and crops, varying income levels, and different types of land use adjustment opportunities.

Participating farmers may receive adjustment payments, cost-sharing payments, and technical assistance for converting cropland to other uses.

Records of conservation practices applied in fiscal 1964 indicate that at least 3 million acres of cropland were shifted to other uses as a result of cropland conversion efforts.

Agricultural Conservation Program

This long-time program is now in its thirtieth year. Using it, about 1.1 million farmers, ranchers, and woodland owners applied needed soil, water, woodland, and wildlife conservation measures to their land in 1964. About 2.2 million farmers have participated one or more times in the past 4 years.

Government and farmers share about fifty-fifty in the cost of these conservation practices, which represent an investment of about half a billion dollars each year.

ACP emphasis is being increasingly directed toward: (1) Land use changes which reduce surplus crop acreage, such as conversion of cropland to permanent vegetative cover; (2) Water conservation and management, to protect and improve farmland natural resources, shift land to more needed uses, and insure a clean and constant water supply for municipal, recreational, and industrial growth; (3) Helping low-income farmers to make better use of their limited physical resources; (4) Special conservation projects locally developed to meet unusual or serious conservation problems. Such efforts generally call for a pooling of financial and technical resources among ACP, related programs, and the community.

A special ACP project for a part of the Limestone Stream Watershed in Aroostook County, Maine, will accelerate land treatment to prevent flooding, even out streamflow, and correct a serious erosion problem on intensively cultivated cropland. Annual soil losses now are estimated to run as high as 16 tons an acre on the critical areas.

About 30 of the 42 farms located within the area have critical problems, requiring installation of many permanent-type soil and water conservation measures. In many cases, this calls for drastic changes in cropping systems.

Annual floods have long plagued the area. Flood prevention will bring a new outlook. Farmers will benefit from better land and water management, turning out better crops at lower cost and earning more income. Business people will benefit from a more stable and prosperous farm industry. Townspeople will have a clean and dependable water supply, free from pollution. Taxpayers will pay less taxes for repair, rehabilitation, or replacement of buildings, streams, roads, and bridges.

Conserving and Improving Our Forests

Among the Nation's most important natural resources are the 154 National Forests and 19 National Grasslands. Located in 41 States and Puerto Rico, they contain 186 million acres. The National Forests provide much more than timber—though the Department sells more timber from them each year than the total sales of any timber company in the world. They provide forage for farm and ranch livestock and for wildlife. Much of the Nation's water flows from them; without it, agriculture could not exist in many States and industry would be paralyzed.

Our Forest Service manages all resources of the National Forests—timber, forage, water, fish and wildlife, and recreation—in harmony with one another to meet present and future public needs, both local and national.

Besides the National Forests, the Nation contains about 358 million acres of private forest land and 87 million acres of State forests. We cooperate with State and private forest owners in protecting and improving these valuable resources.

Grazing Land for Livestock. The forests and National Grasslands provide important supplies of seasonal forage. Upon these lands graze some 6 million head of sheep and cattle owned by more than 19,000 ranchers and farmers.

Helping Woodland Owners. Under our regular cooperative program with the States we gave technical help to 97,000 individual owners of woodlands, assisting them in management of over 6 million acres from which they harvested timber valued at almost $16 million.

We encouraged landowners to develop for profit other forest crops besides timber such as maple sirup, nuts, blueberries, ferns, and decorative

plants. Our research is aiding the maple sirup industry by locating for breeding purposes maple trees which have a high sugar content. Sap from these trees can be made into sirup more economically.

Another Record Timber Cut. Eleven billion board feet of timber were harvested from National Forests in 1964, a billion more than in 1963. This record harvest was valued at $151 million. This amount of timber would build about 2½ million average-size homes, or an 80-foot boardwalk around the earth, or a 9-foot boardwalk to the moon.

National Forest Receipts Rise. Receipts derived from timber and forest products, grazing permits, land uses, recreation, power, and mineral leases and permits in fiscal 1964 amounted to $135.7 million, an increase of $11.2 million over the preceding year. Twenty-five percent of this sum went to the States and counties containing National Forests where it was used for schools and roads.

Improving the Forests. To provide better access for all users and to make forest resources management more effective, we constructed 252 bridges, 652.7 miles of trails, and 2,135.7 miles of roads in 1964.

We continued our war against injurious forest insects, diseases, and fire. We treated 2 million trees infested with bark beetles. In Maine, the Lake States, and the Western States more than 800,000 acres were aerially sprayed with insecticides to control spruce budworm, tussock moths, and sawfly outbreaks. A center was established in California to screen and test new methods of insect control to replace the chlorinated hydrocarbon insecticides. We continued antibiotic treatments of western white pine to control blister rust.

Organized forest fire protection has now become effective on more than 430 million acres of non-Federal forest and non-forest watershed lands.

During 1964, despite severe drought in the eastern region of the Nation, there were 9,741 fires on the National Forests, 2,999 fewer than in 1963. Acreage burned amounted to 181,138 acres, considerably below the 5-year average of 230,065 acres.

In California, however, fires swept the watershed lands of Santa Barbara, Los Angeles, and San Bernardino Counties. Starting even before the embers were cold, the Forest Service, working with several public agencies, sowed grass seed on almost 100,000 burned-over acres to prevent mudflows. The job was successful; the grass took hold before the rains came and erosion was reduced.

The Wilderness Bill. Passage of the wilderness bill by Congress during 1964 formally incorporated into the National Wilderness System 9½ million acres of National Forest lands already classed by the Forest Service as wild and wilderness. Another 5 million acres, now classified as primitive and managed as wilderness, will be studied for inclusion in the System within the next few years.

Crop Insurance

This is a special protective service made available to agricultural producers to insure their production expenses against loss from flood, drought, freeze, and other risks beyond their control. Insured farmers pay annual premiums for this protection.

Federal Crop Insurance cushions the impact of crop failures on individual farmers, their families and rural communities. It does *not* insure a *profit* from the crop. It does insure a major part of the annual investment required to produce the crop. Today when crop costs are high and

This Iowa cornfield is a total loss from hail

Aftermath of a flood

still rising, one failure can cripple a farmer's future. The road from success to bankruptcy in agriculture can be very short. Crop insurance is, therefore, a service of increasing value.

Federal Crop Insurance policies covered about $546 million of crop production costs in 1964. This was the highest coverage of investments in the 26-year history of the program and it doubled the protection ($272 million) provided in 1961. For this protection farmers paid premiums of about $34,000,000.

Insured farmers received about $30 million of indemnities in 1964. While losses were due to many causes, widespread drought and unusual freezes in several areas dealt especially heavy blows to farm finances. Freeze left many peach growers on the eastern seaboard with little or no crop to sell. In 52 of the 446 counties in which FCIC protection on corn was available, the Corporation paid $7,662,000 of indemnities, over two-thirds of the total corn indemnities of $11,250,000.

Altogether nearly 450,000 individual crops on 14.7 million acres, located in 1,187 counties in 36 States, were covered by insurance.

In the past 3 years we have added 300 counties to the program and have expanded the various farm crops on which insurance is offered from 15 to 22. In the 1965 crop year service will be available in 26 more counties.

Interest in crop insurance is growing in other countries and an increasing number of visitors come to the United States to study our operations. A visitor from Brazil emphasizes the value of this program by pointing out the difficulty of establishing adequate agricultural credit in his country without some assurance that the loan can be paid should the crop fail.

In an agricultural economy marked by steadily mounting costs and investments, Federal Crop Insurance can play an increasingly valuable role in the years ahead.

Other Disaster Programs

We have many programs to aid farmers when natural disasters strike. And many were needed in 1964.

Drought spread over broad areas of the mainland, and Puerto Rico and the Virgin Islands as well. Earthquakes and tidal waves wrought heavy damage in Alaska. Hurricanes bringing torrential rains and floods to coastal areas in Georgia, Florida, and Louisiana left trails of destruction to farms and farm crops. Forest fires in California and range fires in Nevada added to the devastation.

By late September, barely 3 months after drought began to reach serious proportions in many States, we had designated 1,062 counties in 30 States as disaster areas in which haying and grazing on conservation reserve, and diverted feed grain and wheat acreages were permitted. More than a third of all U.S. counties were disaster areas—nearly twice the previous record of 542 counties in 20 States in October 1963.

The emergency livestock feed program was extensively used. This program makes available to eligible farmers feed grains owned by the Commodity Credit Corporation at prices reflecting 75 percent of the local support price for the grain if it is to be fed to foundation livestock (including dairy cattle, sheep and goats), and at 100 percent of the support price if the grain is to be fed to market livestock.

Due to drought in 1963, the use of this program built up sharply during the fall. By early December 1963 it was operating in 468 counties of 16 States. By April 1964 it was being used in 598 counties of 21 States.

Spring and early summer pasture and forage crops, and widespread use of the haying and grazing program, helped carry livestock through the summer and early fall months in drought-affected areas.

By mid-winter, however, with some drought areas completely out of feed for late winter and spring use, the emergency livestock feed program reached toward a new record high, with 564 counties in 28 States designated for this assistance. At approximately the same time a year earlier this program was available in 525 counties or parishes of 16 States.

Puerto Rico and the Virgin Islands were struck by one of the worst droughts in history. By June 1964 starvation threatened more than 75,000 head of cattle.

Dramatic livestock feed donation programs held cattle losses through starvation to between 2,000 and 3,000 head during the worst of the emergency.

The effects of hurricanes Cleo, Dora, and Hilda were also mitigated by the donation of CCC-owned feed grains, and permission for temporary grazing in several southern States.

The combination of drought, floods, hurricanes, earthquakes, forest and range fires called for record use of cost-sharing emergency conservation assistance. Because of drought we provided cost-sharing restoration measures in 398 counties of 13 States under the 1964 Agricultural Conservation Program.

Floods in 14 States, earthquakes in Alaska, and range fires in Nevada added 156 counties to the list, and brought allocations for the cost-sharing restoration work needed to a record level of more than $10,285,200 under the 1964 ACP.

Many agencies assisted in disaster operations. FHA made emergency loans amounting to $50,198,000 to 15,300 farmers to aid them in maintaining normal operations following such disasters.

Some 17,000 people in 15 States, who had been driven from their homes by hurricanes, floods, or other natural disasters, received food aid during the year.

Research and Educatio.

Research and education, always vital to the progress of our agriculture, have never been more necessary than now.

Our agriculture requires a system of research through which science and technology continually advance and a system of education through which these advances are continually brought within reach of individual family farmers. This process has supplied much of the foundation on which the success of our agriculture rests.

Research for Progress

Many of the primary facts vital to agricultural planning and management, both as regards production and marketing, are developed through agricultural research carried on by various agencies of the Department

of Agriculture and the State agricultural experiment stations, very often in close partnership.

The growing complexity of the economy creates an increasing need for economic research. The continuing studies of our Economic Research Service on all aspects of the farm economic situation are the foundation for many agricultural decisions.

Thus, ERS, analyzing the factors affecting the depressed prices for fed cattle and cows reached these conclusions: (1) A change of 1 pound per capita in fed beef production results in a 50-cent change in the opposite direction in the price of choice steers at Chicago; (2) a 1 pound change in aggregate cow beef production and beef imports changes the choice steer price by about 30 cents. The analysis led to the further conclusion that most of the variations in fed cattle prices during 1963 and 1964 are explainable by changes in domestic steer and heifer beef production. This study is of great value in forecasting prices and in appraising the effects of Government beef purchase programs on cattle and cows.

Other research indicates that cotton ginners can reduce costs sharply by peaking individual layer systems used for materials handling, by rearranging gin machinery to eliminate unnecessary fans, motors, and piping and by properly loading electric motors.

ERS also conducted intensive research on the impact of the health issue on tobacco consumption and its implications for the future. The study reveals that during early 1964, cigarette consumption declined sharply, but by mid-1964 it was nearly back to the mid-1963 level. Continuing concern about smoking and health makes the intermediate and longer range trend of cigarette consumption uncertain. There has been a sharp upsurge in cigar and cigarillo consumption and a significant increase in the use of tobacco for pipes. The shifting pattern of tobacco use will continue to warrant close attention.

Research has identified the improvements needed to meet market requirements for an expanded use of modified fats and oils and guides have been provided for further developmental research. An expansion of 40 million pounds in the use of these fats and oils can be realized in the next 5 years in confectionery coatings through improvements in melting characteristics, gloss, and mold release; 35 million pounds additional can be used in protective edible coatings through improvements in abrasion resistance and transparency; and 7 million additional pounds in edible food lubricants, if tendencies toward rancidity and polymerization are reduced.

Statistics for Progress

Farmers and all closely concerned with agriculture need access to timely and accurate statistics covering production, prices, and other aspects of agriculture. During 1964, our Statistical Reporting Service provided about 700 regularly issued statistical reports. These timely releases on all the main aspects of the agricultural economy are produced in conjunction with field offices in agricultural areas and the voluntary cooperation of 700,000 farmer reporters and 150,000 businessmen throughout the country.

Basic data on livestock and crop production, stocks, disposition, and

agricultural prices appeared regularly through the year as a guide for farm planning and for analysis and planning use by others in business and government. While continuing and improving currently valuable estimates, we initiated new data series to serve the dynamic agricultural enterprise. During the past year these expansions included December 1 hog numbers by weight groups, cattle on feed estimates in 4 States by quarters and 2 States by months, weekly broiler numbers added in 1 State, and monthly milk production in 11 new States.

Meeting the Educational Challenge

We continually seek improved educational methods to help farmers acquire the clear understanding of economic forces required for sound decisions.

The Cooperative Extension Service provides intensive "school" training to farmers desiring a quick study of specialized subject matter. Some 40 State Extension Services trained almost 100,000 commercial farmers in such subjects as management economics, animal science, plant science, soil science, agricultural engineering, and farm marketing. The average period of instruction was a little more than 10 hours.

To meet the educational challenge posed by depressed cattle prices, Extension offered a three phase response: (1) Helping the industry understand the market changes affecting meat prices; (2) helping individual producers analyze and evaluate the alternatives available to them; (3) working with industry groups to tell consumers about plentiful beef supplies and to achieve more efficient marketing of meat. About four out of five U.S. consumers were reached through these educational efforts.

The revised standards for wheat necessitated an educational effort to acquaint producers and the grain trade with the changes and to encourage production of high quality wheat. Extension sponsored more than 100 "grading schools" in 18 major wheat producing States. With field personnel from the Agricultural Marketing Service, the Agricultural Stabilization and Conservation Service, and the Food and Drug Administration cooperating, these schools instructed about 20,000 persons on the new grading standards.

The interrelationship of marketing and production continues to receive increased emphasis.

Following a series of lectures on marketing, an Extension specialist helped pole bean growers in Dade County, Fla., set up the South Florida Vegetable Exchange to operate a supply management program. Growers increased their total returns by almost $400,000 over the preceding season.

Extension personnel in eastern Arkansas worked closely with farmers and processors in studying the feasibility of going into vegetable and fruit production and processing. When processors assured growers a market, farmers put in about 1,000 acres of vegetables which brought them a return of approximately $165,000. Local processors, able to buy from this nearby source, saved $12,000 in transportation costs. Prospects for processed fruit are also good; eastern Arkansas farmers have responded by planting 120,000 fruit trees.

The activities we have been discussing—commodity programs, programs to strengthen farm bargaining power and improve marketing efficiency, programs to conserve natural resources, and research and

education to help the individual farmer contribute more effectively to the economy—all have a major impact on the U.S. family farm pattern of agriculture.

Without exception they are built on the postulate that the family farm system is, and will continue to be, the most productive and responsive form of agriculture as well as the best social structure for rural America. The abundance that system provides for our own people plus the additional supplies available to promote better living abroad is convincing proof of its efficacy.

This leads us to the next section of this report in which we discuss how we are using agricultural abundance to protect world peace and security, and to nourish economic development outside our own shores.

FOREIGN TRADE AND AID

The year 1964 was marked by several events of major significance to U.S. agricultural foreign trade.

Foremost was the dramatic climb to a new peak of over $6 billion in annual U.S. agricultural exports. This was achieved 4 years ahead of the time projected a few years ago.

Market development continued to open up promising markets for U.S. producers of many farm products despite intensified promotional efforts by some of our competitors.

World weather produced great changes in agricultural trade. Drought in Europe was a major factor in a record international movement of wheat and feed grains. The world dairy surplus shrank sharply. An unexpected world shortage of red meat developed, leading to reduced U.S. beef imports and increased exports.

The bars began to come down on agricultural trade with the Soviet Union and other Eastern European communist countries.

The spotlight was turned on the need for international agreement on food laws that aid rather than impede world trade in food products.

Congress authorized continuation of the Public Law 480 (Food for Peace) program for 2 more years and placed new emphasis on greater returns to the United States.

Progress was made in expanding technical agricultural assistance to emerging countries in many regions of the world.

A new trade policy bloc emerged, made up of the less developed nations which are getting organized and seeking more favorable trade terms with the developed nations.

A new World Food Budget was published, projecting world food supplies and needs and evaluating food problems as they may exist in 1970.

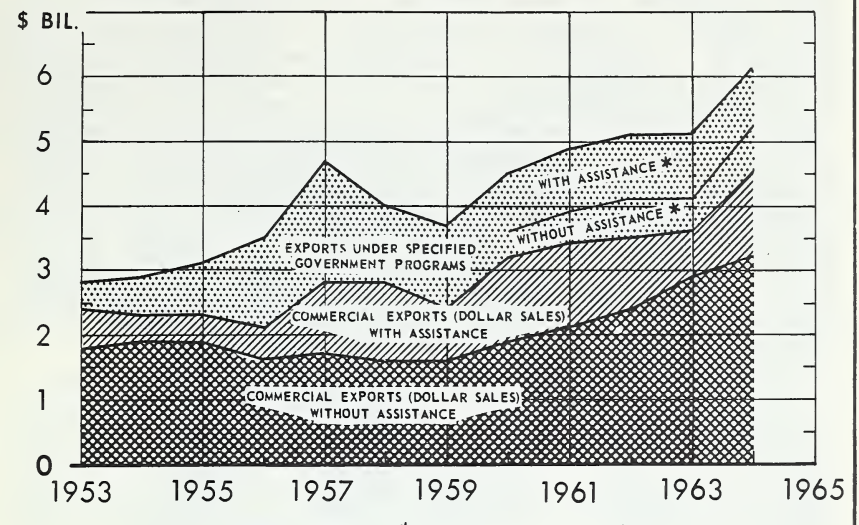
Several of these events merit amplification in this report.

Agricultural Exports

In the late 1950's, the forecast was made that U.S. agricultural exports would likely reach $6 billion by 1968. In fiscal 1964, our farm exports not only equalled but surpassed that figure, reaching $6.1 billion—a 20-percent increase in 1 year and a 35-percent gain since 1960. This represented by far the largest agricultural export operation ever carried out by one nation in a single year in the history of the world.

New records were set in the export of wheat and flour, corn, soybeans, rice, tallow, nonfat dry milk, hides and skins, butter, variety meats, and dry edible beans. Shipments of many other products were at near-record levels. U.S. agricultural imports, on the other hand, were only slightly above those of the previous year, and gains were primarily in the com-

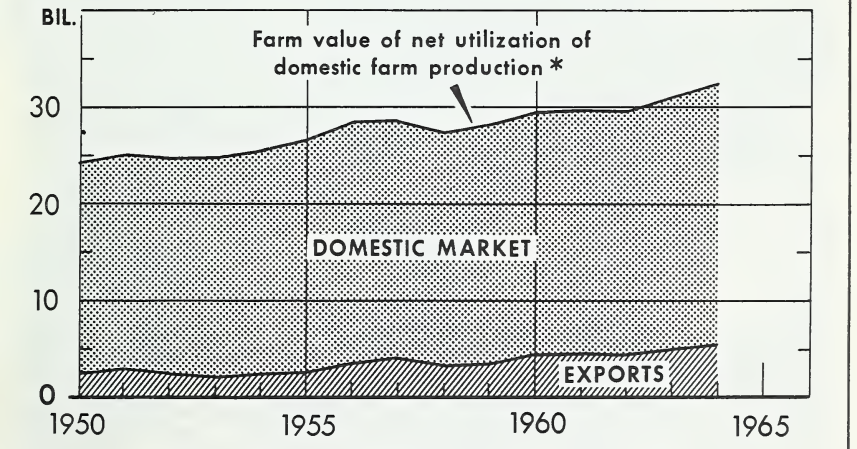
Dollar Exports Hit New High in 1963-64



YEAR ENDING JUNE 30. * AVAILABLE ONLY FOR 1960 - 1964

U. S. DEPARTMENT OF AGRICULTURE NEG. ERS 2493-64 (12) ECONOMIC RESEARCH SERVICE

EXPORT MARKET OUTLET FOR FARM PRODUCTION



* VALUED USING 1957-59 FARM PRICES. EXCLUDES DUPLICATION OF FEED AND SEED. 1963 PRELIMINARY. 1964 ESTIMATED.

U. S. DEPARTMENT OF AGRICULTURE NEG. ERS 3260-64 (10) ECONOMIC RESEARCH SERVICE

plementary, or noncompetitive, commodities.

Three-fourths of our agricultural exports moved under straight commercial transactions. These commercial sales totaled $4.6 billion—a gain of $1 billion over any previous fiscal year and a new record by a wide margin. The remaining one-fourth was shipped on special terms under the Food for Peace program to meet food needs and stimulate economic development in friendly nations.

Exports are a market outlet of growing importance for American farmers. In 1964, the value of total U.S. agricultural exports—commercial and Food for Peace shipments—was equivalent to 16 percent of the total cash receipts from all farm marketings. Exports represented the output of 1 in every 4 U.S. harvested acres.

They are important to industry, too. Substantial earnings in business activities are associated with agricultural exporting. Export dollars pay wages and interest, buy machinery and fertilizer, and storage and transportation, packaging, and processing.

Commercial agricultural exports bring back to this country many of the dollars that move out because of defense and aid, tourism, and U.S. investment abroad. Although the overall balance of payments situation remains unfavorable, we are selling more merchandise abroad than we are buying. Out of a favorable balance of $6.5 billion in merchandise trade in 1964, agriculture accounted for more than $2¼ billion—or 35 percent.

Market Development

Agricultural market development takes many forms. Here are some typical activities of 1964:

Representatives of the Italian meat trade toured U.S. packing plants and the cattle country to study U.S. beef, develop trading contacts and make purchases.

Teams of U.S. and European food scientists exchanged visits for a study of international food health regulations and their inhibiting effect on trade, and worked toward improved common standards.

Direct approach to Swedish school officials put U.S. rice on school lunch menus in Sweden—one of a score of countries where American rice is being promoted directly to consumers.

A series of promotional exhibits for importers, wholesalers and retailers at the U.S. Trade Center in Tokyo brought expanded sales in Japan of such U.S. products as frozen poultry, canned and fresh fruit, soybean foods, and leather goods.

The U.S. cotton industry commissioned the designing of a line of leisure garments for men, women, and children to be made of cotton and sold to leisure-conscious West Europeans.

Seminars, feeding trials and similar work with the trade and agricultural educators abroad kept U.S. exports of feed grains, soybean meal, and tallow on the uptrend.

These and other market development activities were carried out under the cooperative program in which Government and industry have worked together since 1954, when foreign currency was made available for market development under the Food for Peace legislation. The main objective is to sell American farm products through commercial transactions that yield dollars. During 1964, there were 44 U.S. agricultural producer and trade organizations in this program, working actively with the Department of Agriculture in 67 countries and sharing in the costs. These U.S. trade cooperators in turn have 218 foreign trade cooperators who also share in the costs.

A Belgium housewife admires an American cotton display

Scene at U. S. Trade Center in Tokyo

In addition, we sponsored 12 exhibits during the year at trade and food fairs in various countries, chiefly in Western Europe, and 7 exhibits at trade centers. In these exhibits considerable emphasis was placed on U.S. processed and convenience foods, which are coming into increased use in many parts of the world. We also sent several marketing specialists to work with the trade abroad on problems relating to the use of U.S. commodities.

Administratively, we made a major change in the market development program by requiring each industry cooperator to operate on the basis of an annual marketing plan. This plan includes a statement of goals, a description of how these goals will be reached, an estimate of costs for the activity involved, a justification in terms of alternative possibilities, and a staffing pattern. Added stress was also placed on program evaluation, chiefly through temporary employment of outside consultants in marketing, promotion, merchandising, and corporate management.

Food for Peace

Exports under the Food for Peace program amounted to $1.6 billion, approximately one-fourth of total farm exports. More than $1 billion of this was sold for foreign currencies. These currencies in turn were used to pay U.S. expenses abroad or for economic development in the recipient country. Lesser amounts were shipped under the other Food for Peace programs: Grants and donations, barter, and long-term dollar credits.

We took major steps to strengthen the administration of this program. New regulations assure proper arrival of Food for Peace commodities in the importing country. Moreover, we instituted a new procedure to assure that the commodities are retained in the importing country. We require recipient governments to furnish a quarterly statement that no program commodities have been sold or transshipped for use outside the country. In addition, a system of spot checks on arrivals and unloadings was instituted.

The legal authorization for two phases of the Food for Peace program—sales for foreign currency and foreign donations to persons in need—was extended by the 88th Congress for 2 years—until the end of 1966. Other phases of the program have no fixed expiration date.

Special Trade Problems

Problems relating to market access for U.S. farm products continued to dominate trade policy. Many of these problems arose in our relationship with the European Economic Community (EEC or Common Market).

The EEC's common agricultural policies have hurt us thus far mainly in our exports of poultry and wheat flour. But these policies have the potential of substantially reducing also the Community's imports of other U.S. farm products, particularly rice, wheat, and feed grains in the future.

During 1964, therefore, the United States pressed for improved agricultural access to this important agricultural market, both through direct negotiation with EEC and through the General Agreement on Tariffs and Trade (GATT). We sought to work out with the EEC a market-sharing formula.

The beef import law (Public Law 88–482) enacted by the Congress shows clearly that the United States is prepared to accept reasonable levels of imports at the same time we promote our exports, and this example should be helpful in our trade negotiations and should serve to show the European Common Market that we ask for no special treatment but request only a measure of access to foreign markets that we already are giving to our own markets.

The Kennedy Round of GATT negotiations began May 4, 1964, and was still in progress as the year drew to a close. These worldwide negotiations, involving not only the Common Market but also all our trading partners and not only agricultural commodities but also industrial items, are of great complexity and difficulty, and are closely related to many of our other Atlantic relationships.

As 1964 came to an end, the agricultural phase of the Kennedy Round of negotiations was deadlocked. The ECC's agricultural negotiating position was based upon perpetuation and expansion of its variable levy system, and this did not meet the test of trade expansion. The U.S. approach, by contrast, was based on the objective of lowering barriers and expanding trade in agricultural products. We continued to hope that a formula could be found so that agricultural negotiation, with the objective of lowering barriers and expanding international agricultural trade, could get underway soon.

East-West Trade

One of the important trade developments of recent years has been the large-scale buying of wheat by communist countries from the capitalist countries, particularly purchases by Communist China since 1960 and more recently by the Soviet Union. In 1964 the United States sold 65 million bushels of wheat to the Soviet Union and lesser amounts of wheat and feed grains to other Eastern European communist countries. This modification of U.S. trade policy was announced by the late President Kennedy in 1963.

The United States also has benefited indirectly by Canadian and Australian grain sales particularly, and to a lesser extent by those of France and Argentina, to the Soviet Union and Communist China. These sales have drained large amounts of wheat from regular market competition. They would have helped U.S. marketings even more except that the communist demand also stimulated expanded wheat production among our competitors.

Except in years of exceptionally bad crops, we cannot count on Russia as a wheat importer. Communist China, on the other hand, continues to be a major factor in the world grain market, having bought more than 22 million metric tons of grain from free world sources at an estimated cost of more than $1.5 billion since 1960.

World Beef Trade

The year witnessed an abrupt change in the direction of world beef trade. World demand for beef was up, particularly in Europe and Japan, and production outside the United States had temporarily declined following a severe European winter and drought in Argentina. The U.S. beef

trade began to reap benefits from this situation. U.S. imports of beef, which were unduly large in 1963, were down 29 percent in 1964, and Congress enacted new legislation aimed at preventing any abnormally large influx of foreign beef in the future. Exports of U.S. cattle and beef, although not large in terms of our total supply, increased about three-fold.

The beef shortage was particularly acute in Western Europe. With this situation developing, a group of U.S. meat exporters visited Europe at the President's request early in the year and reported market prospects reasonably favorable. Since then an intensive promotion program has been directed at European consumers and the trade, with encouraging results.

As mentioned earlier, the first exports of feeder cattle to Europe in more than 50 years were shipped to Italy in 1964, and veal calves began to move to the same country by air freight. The European taste traditionally is for lean beef which grades "Commercial" or "Good" in the United States. The year's developments, however, indicate that European demand may also be built for high-grade "fed" beef, of which the United States is the world's only major producer.

The World Food Budget, 1970

We recently completed a comprehensive study of world hunger—*The World Food Budget, 1970.* This study shows that the world's food shortage is measurable and of a size that can be met—at least, in the free world.

It shows that two-thirds of the world's people live in countries where average diets are low. This does not mean that two-thirds of the people are actually hungry, but that in those areas where two-thirds of the people live there tend to be varying degrees of malnutrition, ranging from diets that are poorly balanced to actual food shortage and hunger.

We expect consumption to improve about 10 percent per capita during the 1960's. Even with this gain, however, the measurable 1970 world food deficit, in terms of calories, animal and vegetable protein, and fats, is expected to be equivalent to 54 million metric tons of grain, plus 6.5 million tons of nonfat dry milk, plus 3.2 million tons of soygrits, plus 3.1 million tons of vegetable oil.

These projected deficits, in relation to the current level of food production in this country, are equivalent to about a third of the annual U.S. grain production, 1⅓ times the total U.S. milk production, about 20 percent of the soybean output, and three-fourths of the vegetable oil output.

The great preponderance of the 1970 world food deficit—93 percent—will be found in the Far East. Communist Asia (China) alone is expected to account for 62 percent. The hostile attitudes towards the United States which prevail in this area preclude any effective action on our part toward reducing this portion of the food gap.

But in those parts of the world where U.S. assistance is welcome, the food deficit can be overcome.

The free-world nutritional deficit projected for 1970, measured in the cost of food products, is estimated at about $2.6 billion. Compared to our own productive capacity, this gap becomes relatively modest in its dimensions. It is less than half our fiscal 1964 agricultural exports. This does not mean that the deficit could be eliminated simply by increasing

our exports 50 percent. Such an increase in exports is already projected as part of the 1970 deficit picture. But it would be possible for American agriculture to meet the deficit by using the one-fourth of our agricultural capacity that is now idle. If the food deficit countries could raise their technical capacity, this could also contribute to closing the gap. The free-world food gap, therefore, definitely can be closed.

Ending hunger, however, even in the free world, will in practice be a difficult task. It cannot be done by making the developing nations forever dependent on U.S. generosity. The developing nations do not want this, nor do we ourselves want a permanent worldwide feeding program.

In the long run, countries now short of food must substantially improve their own capabilities. They must expand their food production and their trading resources so that any food deficits still remaining can be met through purchases in the world market.

In the short run, however, these countries do need a helping hand—an effective combination of assistance and development.

Building New Markets Through Technical Assistance and Training

Much of the gap between what food the free-world developing nations produce and what they need is now being filled by U.S. agricultural commodities, made available on both commercial and concessional bases. In the 5 years, 1957–58 to 1962–63, concessional sales of these commodities almost doubled. The less developed countries pay what they can toward the food they import, but they lack the foreign exchange to meet their total needs.

The key to a nation's ability to pay for food imports is economic growth. To illustrate, for every 10 percent increase in a country's per capita income, U.S. commercial shipments of agricultural commodities increased 12 percent between 1938–40 and 1959–60. In nations such as India, where more than 50 cents of every dollar's increase in a family's income is spent for food, the importance of rising income is dramatically apparent. Worldwide, we know that in countries where per capita income is less than $300 a year, per capita imports of U.S. agricultural commodities are less than 75 cents. Where per capita income is $900 or more, per capita imports are more than $7.50.

Since 60 to 80 percent of the people in the developing nations live in rural areas, increased agricultural productivity is the best hope for stimulating economic growth. While it might seem that agricultural progress would preclude additional agricultural imports, this is not the case. Improving agriculture has a multiplying effect: Poor people in rural areas earn more and provide a broader market for local and imported goods; farmers can afford to use fertilizer, pesticides, and machinery, much of which must be imported; increased production helps hold down food prices and avoid inflation, the thief of many a nation's purchasing power. Rising income enables the people to improve their diets both in quantity and quality and this involves additional food imports.

Throughout 1964, for the first full year, the Department's programs of technical assistance to these nations were coordinated by the International Agricultural Development Service. In response to requests from the Agency for International Devolpment and various international organizations, IADS drew from the specialized USDA agencies, individuals spe-

cially equipped to give officials in these countries advice and guidance on agricultural development.

During the year, resident teams of USDA specialists went to Ecuador, Nigeria, Nepal, Colombia, Nicaragua, and Brazil. At the end of the year, 148 specialists from the Department were providing technical assistance in 14 different countries. While most of these technicians were on short-term details of a few weeks or months, over one-third were working abroad as members of resident USDA teams.

In El Salvador, for example, four USDA technicians advised on problems of agricultural marketing, land tenure, and agricultural research. Agriculture in El Salvador suffers from inadequate internal market systems for getting the tropical crops from producer to buyer. Present systems of land tenure prevent individual farmers from developing efficient and productive farming operations. These are key blocks to the further development of Salvadorian agriculture and beyond this to a stronger national economy and more active world trade. USDA specialists are helping to remove them.

In Northern Africa, two teams of Soil Conservation Service technicians are working with the governments of Tunisia and Algeria in planning and applying soil and water conservation programs. In India, an emergency team of price policy specialists has been helping the government attack its complex problems of food shortages, rapidly rising food prices, and inadequate marketing facilities.

Besides such on-the-spot technical assistance, the Department arranged

U.S. feedgrains help Asian farmers raise livestock In Vietnam, the pig-raising program is part of the counter-insurgency effort.

for specialized training in agriculture for 4,548 individuals sent to the United States. We planned and directed training programs for each one, often including academic training at a U.S. university and practical experience in private businesses, cooperatives, extension services, research stations, and similar institutions. These visiting agriculturists are key career people who will play important roles in the future development of their countries.

From India, for instance, came two government officials for a year of intensive study of internal grain storage and marketing. Out of their opportunities to study the U.S. grain trade—work with grain farmers, grain promotion associations, cooperatives, equipment companies, port authorities, millers, and grain inspectors—should be derived much valuable information for Indian agricultural development.

We trained individuals from other countries in the management of school lunch programs. These programs, notable for enriching the diets of thousands of U.S. youngsters, are being adapted elsewhere, especially in Latin America. Trainees in this field came from Chile, Ecuador, and Brazil. One team came only to study food handling by voluntary agencies.

Public administration is still another important area of training. In recent years, we have enrolled some 160 agricultural leaders from 44 countries in short courses stressing the techniques of administering agricultural programs. Thus, we help to upgrade planning and management skills of top officials from other countries.

In many developing countries the need for a cooperative approach to economic problems is especially needed. The development of the economy and of cooperatives is often jointly related.

To advance agricultural cooperation in developing countries our Farmer Cooperative Service constantly supplies publications and other informational materials to the Agency for International Development, the Peace Corps, the United States Information Agency, the Voice of America, and the International Training Center for Cooperatives, and directly to foreign cooperatives, government officials, and others abroad.

During 1964 over 450 trainees, cooperative leaders, and government officials from 45 countries consulted with the FCS staff. FCS also helped plan trips to U.S. cooperatives so these people could directly observe the operation of cooperatives in the United States. FCS in coordination with the International Agricultural Development Service is providing and supervising cooperative experts in selected countries of South America to aid in the development of their cooperatives.

The American farmer recognized a decade ago that we must use our abundance as an instrument to help the people of the world free themselves from the bondage of hunger—and then of the bondage of poverty. Since then, through the wise and generous use of agricultural abundance, the people of the United States have helped millions of unfortunates abroad escape starvation. Now we are using food more and more as capital to build schools, roads, irrigation projects, and other public facilities, to open new lands and assist in land reform; all are necessary elements in economic growth.

In South America I have seen school lunch projects sponsored by the people of the United States. Children go to school in order to eat and leave with the priceless gift of education. There is a school in Pakistan

which symbolizes agriculture's great humanitarian achievements. In July 1961, I promised a village leader in that country that we would provide wheat for wages in order to build a school in his humble village. We have made good on that promise. Today a new school building stands there; and, significantly, it is the only structure in town with running water.

We are not only helping friendly nations become stronger allies, but are also making significant strides in providing effective technical assistance and training for their economic growth. Out of growth will come customers for U.S. agricultural commodities in the future, and this, in turn, will further strengthen the American family farm.

More than a strengthening of agriculture and the family farm is needed, however, to bring about a true renaissance in rural America. It is this to which we now turn our attention.

TOWARD A RURAL RENAISSANCE

As our Nation has grown, rural America, once the bulwark of our national economy, has become Forgotten America.

In every part of the country rural communities deteriorated until in 1960, with less than one-third of our population rural, half of the Nation's poverty was concentrated in rural areas.

Of the 35 million persons with annual incomes below the established poverty income level ($3,000 for families and $1,500 for unrelated individuals) more than 17 million lived in rural America. About 6 million were on farms, roughly two persons out of five in our farm population.

Of these poverty-level rural families, 83 percent were white. More than half were in the South. The highest concentrations of rural *farm* poverty were in the heavy cotton and tobacco producing areas of the Southeast, while the highest concentration of rural *nonfarm* poverty was in Appalachia, from southeastern Pennsylvania to northern Georgia.

Loss of Population

One evidence of deterioration is the heavy migration out of rural America that has prevailed especially since World War II. Between 1950 and 1960, while national population grew by nearly 30 million persons, 1,500 out of 2,700 rural communities lost population. Strongly rural counties (those with 70 percent or more of their people living in rural areas in 1950) had a net loss of more than 4 million persons, some 15 percent of their total population.

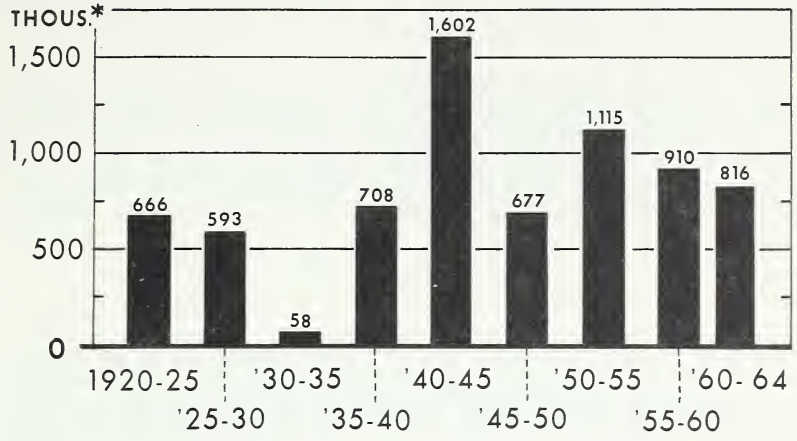
Many of those who left were farm people. So sharp has been this migration that on our farms today (1964) there are less than 6 persons for every 10 that were there in 1950.

A sample survey of the entire U.S. adult population indicates that one-sixth of all the residents of urban and suburban America 18 years old and over were born on farms.

Even more significant than the declining population, however, are the characteristics of those who left.

In counties eligible for assistance under the Area Redevelopment Act, an average of 40 percent of the young people coming of age moved away between 1950 and 1960. This migration deprived these communi-

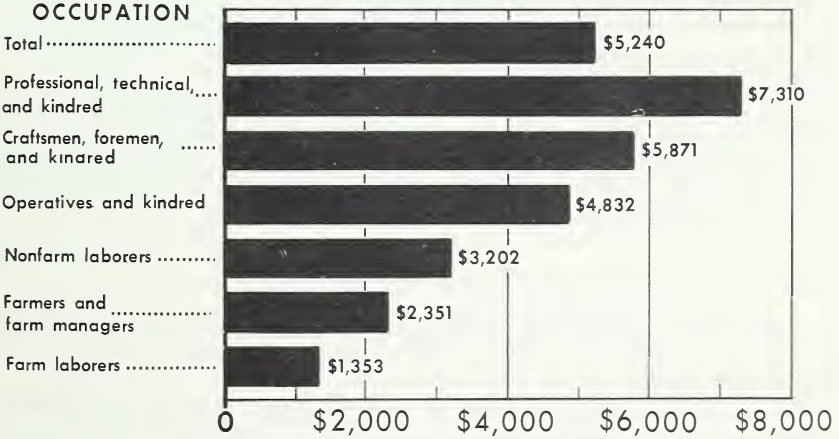
AVERAGE ANNUAL NET OUTMIGRATION FROM THE FARM POPULATION



*NET CHANGE THROUGH MIGRATION AND RECLASSIFICATION OF RESIDENCE FROM FARM TO NONFARM.

U. S. DEPARTMENT OF AGRICULTURE NEG. ERS 2089-65(5) ECONOMIC RESEARCH SERVICE

MEDIAN EARNINGS OF MALES BY OCCUPATION, 1963



MEDIAN EARNINGS IN 1962 FROM EMPLOYMENT, INCLUDING SELF-EMPLOYMENT, OF MALES IN CIVILIAN LABOR FORCE.

DATA FROM BUREAU OF THE CENSUS.

U. S. DEPARTMENT OF AGRICULTURE NEG. ERS 2949-64(6) ECONOMIC RESEARCH SERVICE

ties of a large part of their most valuable resources—the young men and women who build new homes, start new businesses, raise families, and provide the aggressive activities characteristic of ambitious youth.

On our farms today, men and women between 45 and 64 years of age outnumber those between 25 and 44. Among nonfarm people, on the other hand, the 25 to 44 year olds outnumber those from 45 to 64 by more than one-fourth.

Those who left farm and rural areas were, in many cases, ill prepared to make a living in the cities. Our studies clearly show that migrants from the farm are overconcentrated in low income jobs: Laborers, service workers, and lesser skilled craftsmen. Only 35 percent of the farm migrants have entered or worked up to professional, managerial, sales, and clerical occupations, compared with 50 percent of those not born on farms.

Why They Left

Why did so many people, especially the younger adults, leave rural America? Obviously, because opportunity was lacking—and is still lacking. Communities with generally low incomes tend to perpetuate poverty. As mining declines or cotton and tobacco farmers find markets dwindling, the tax money for schools and roads is harder to come by. The labor force is untrained. The community can't compete as well for new industry to replace vanishing jobs in mining or farming.

With good economic reason, the young, the bright, the strong look elsewhere. The average income of farm families is far below that of city families. In 1959, the national median family income was $5,660. The comparable figure for urban families was $6,166; for rural nonfarm, $4,750; and for farm families, $3,228. Recent studies show that, though the income of all three groups is increasing, the dollar spread between farm and nonfarm incomes is still widening.

Moreover, it is estimated that only 10 percent of the boys now living on farms can expect to become farmers earning more than $2,500 a year. So they go to the cities to get jobs.

But a job is not the only reason. A substantial number of those who go to the cities tell us they do so because country life isn't interesting enough, challenging enough, rewarding enough. It lacks too many of the advantages of city living: Good schools, libraries, art, music, drama, as well as hospitals, pure water, and adequate housing.

Parity of Opportunity Our Goal

We are determined that rural people shall not continue to be deprived of parity of opportunity with city people just because they happen to live in the country.

The child of tomorrow born in rural America must have the same opportunity as the child born in the city—and every child, in city and country alike, must have the opportunity to enjoy fully the advantages of the Great Society.

In the past 3 years especially, action on a massive scale has been getting results in revitalizing and recapitalizing farm and nonfarm rural America.

People in about three-fourths of the counties in the United States have organized rural areas development committees to marshall the collective leadership of each community, to inventory resources and study potentialities, and to open up new paths to progress. The rural landscape is increasingly brightened by new community successes. As the following case histories show, formerly depressed and dying rural counties are striding proudly toward rural renaissance.

An excellent example of economic development is provided by Logan, Muhlenberg, Todd, and Butler Counties in Kentucky. Here development was spurred by the Mud River Watershed Project. This project, carried out with assistance from our Soil Conservation Service, won the 1964 National Watershed-of-the-Year award.

The village of Lewisburg today has a reliable water supply replacing the old, inadequate private wells, formerly the only source of water for Lewisburg's 192 residents.

Lake Malone, formed by one of the structures, has 900 acres of water for recreation and is providing 15,000 man-hours of fishing annually. A $45,000 sportsman's lodge has been built on its shores, and sites for more than 250 summer homes have been sold.

The Emerson Electric Company early in 1963 built a $4 million plant at Russellville to make fractional motors, and hired 480 persons. This company now has 700 employees and an annual payroll of over $2¼ million. Another expansion now under way will add 50 employees. The water and recreation resources provided by the watershed project were important considerations in the location of the Emerson Company.

The Rockwell Manufacturing Company of Russellville recently completed a $500,000 expansion. The company has 285 employees and a million-dollar plus payroll.

A manufacturer of laying crates and prefabricated "hog parlors" has located a branch in Lewisburg—jobs for 75 people.

A Russellville businessman has started a boatshop to serve the sportsmen using the watershed lakes.

And loans and deposits in the Southern Deposit Bank increased 25 percent in 5 years, largely due to the land improvement work being done in the watershed.

Chesterfield County, S. C. is another area in transition. Extension agents helped local people organize a pilot rural development program in the county in 1956. In 1961, Rural Areas Development and the Area Redevelopment Administration gave the program added impetus.

The county has set up an 80-member Total Resources Committee, broadly representative of all interests in the county, which is stimulating and guiding agricultural and industrial development in the area.

RAD has helped promote farming efficiency, stressing production of nonsurplus commodities. Livestock has now become a $2¼ million business, equalling cotton. Increased soybean acreage and yields have combined to produce a million dollar crop.

In 5 years average farm size increased from 92 to 128 acres. Bigger farms, more machinery, better management, stepped up Extension educational work have helped raise income.

Many small farmers, however, are still underemployed. Industrial development is now providing increased opportunities for off-farm and part-time jobs.

A RAD-sponsored labor survey helped locate people who want to work, identifying their capabilities for the growing number of employers locating in the county.

A recently completed apple- and peach-processing plant at McBee, financed by the local development corporation and an ARA loan, provides seasonal employment and better fruit marketing facilities.

The newly established Chesterfield Garment Corporation, financed with local money and an ARA industrial loan, created 40 new jobs. A locally sponsored training program fitted employees for this "home-grown" industry.

A local knitting plant recently added 11 workers, and is building an addition which will employ 75 to 100 more.

A new ball-bearing plant, financed by local money, an Area Redevelopment Administration loan, and corporate funds, began production at Cheraw in the fall

of 1964, providing jobs for about 100 workers. The site was chosen by a national industrial locating firm on the basis of the combination of resources the area now offers.

In the past 3 years, 35 new houses have been built in Jefferson, a town of 550 persons. Forty houses are being built in Pageland.

ARA public facility grants and loans, and accelerated public works projects, have enlarged water and sewage facilities for major towns in the county. Besides making possible 900 new industrial jobs in the past 3 years, these public facilities are paving the way for greater industrial and business expansion in the future.

Sumter County, Ga., offers still another interesting case history. In a decade, farm income has more than doubled, rising from $5.5 million in 1954 to $12 million in 1963.

The increase has been most marked in the high protein products. Thus, income from livestock is up ninefold, from $720,000 to $6,300,000; income from poultry tenfold; and dairy income fivefold.

Besides the farm income revolution, Sumter County's rural area development program has produced: A 400-acre industrial park providing 884 new jobs; a 150-acre lake and three hunting and fishing preserves; new schools, expanded library services, a new expressway; a $1.6 million home for the aged; a $289,000 flood control project, and an expanded water and sewage system; and a local housing authority with hundreds of new homes and apartments.

Rural Development—A "People's" Movement

All of the agencies of the Department contribute to the general aims of Rural Areas Development.

This is because rural development covers such a wide range of activity, from research to financial loans, from education in the broadest sense to strictly technical assistance. The encouragement of rural resource-based industries, income-producing outdoor recreation enterprises on privately owned rural land, and better rural community facilities cross many agency boundaries.

Moreover, some of the Federal programs that contribute to the success of Rural Areas Development efforts are located outside the Department of Agriculture. Several other departments and independent agencies are involved.

Despite the very considerable government activity, however, the revival of rural America is not a job for the Federal Government alone, or even primarily. It must be—and it is—a nationwide movement, involving people of all classes and governments at all levels. It is a movement of, by, and for the people, aiming at benefits for all who live in or seek to enjoy rural America.

The role of government is to help local people make their contributions as effectively as possible.

Better Farming: Keystone of RAD

A key part of the foundation of rural prosperity is still prosperity for family farm agriculture.

Contrary to popular belief, the American farm economy is not concentrating into a relatively small number of large "factory" farms. According to an analysis by our Economic Research Service, the most rapidly growing sector of agriculture consists of farms, mostly family farms, with annual gross sales of $10,000 or more. Since 1939, the number of these farms has increased 159 percent. Their average market-

ings, however, have risen only 20 percent. While the total number of U.S. farms decreased from 6.4 million in 1939 to about 3.4 million in 1964, 95 percent of this decline is explained by the disappearance of 2.9 million farms with gross sales under $2,500.

Agriculture has been dividing into an expanding sector of larger farms and a contracting sector of smaller farms. In the 1940's, the dividing line was at about $5,000 worth of gross sales per farm. In the 1950's the dividing line moved up to approximately $10,000 of sales per farm. It will likely continue to rise as technology advances and standards of living improve.

About 2 million of America's farm families are presently above the poverty line, when both farm and nonfarm incomes are considered. Most of them are within realistic striking distance of a full parity of income if the needed commodity and related programs can be provided, and if a rapid rate of nonfarm economic growth can be maintained.

Of the remaining 1.4 million farm families about one-third can, aided by proper farm programs and training, develop into operators of fully adequate family farms.

This leaves roughly 1 million poverty-stricken farm families in what might be called the "boxed-in" group. For them the only sensible solution is "rehabilitation-in-place." We consider farm families earning less than $3,000 a year to be "boxed-in," if the head of the family is 45 years or older with little or no experience except in low-income farming, or if he has less than 8 years of formal education. Few such families can expect to gain full parity of income or even to rise above the poverty level with the help of commodity and conservation programs alone.

In some areas such "boxed-in" farm families predominate. For example, it is estimated that in West Virginia five out of six farms are too small to have any prospects of producing successfully for today's markets. More than half of the farmers are 65 or older. Many farms are run by a woman alone. To solve the economic problem of such families, much more than commodity and service programs are needed.

On the other hand, running them off the land to city relief rolls is certainly not a sensible solution.

For these families, as for many others outside the poverty group, we need to search out and activate new sources of income such as: (1) Additional land or capital resources for improved farming; (2) diversification into such products as fruits and vegetables that a growing and more prosperous population requires and wants; (3) income-producing outdoor recreation facilities; (4) off-farm jobs; (5) improved farm forestry; and (6) rural based non-agricultural enterprises.

Supervised Credit Can Help

The Farmers Home Administration has an especially important role in helping underemployed, low-income farmers improve their situation. FHA assists its borrowers to formulate and maintain annual and long-term farm and home development plans. County supervisors provide aid in making complete and continuing reviews of farming operations, including production, financial management, marketing, household expenditures, and other significant aspects of farm and home planning.

In fiscal 1964, FHA advanced $300 million in operating credit to

The face of poverty

Symbol of hope—a tractor financed by an FHA loan

76,000 farmers to pay for equipment, feed, seed, livestock, and other farm and home operating needs and to refinance chattel debts.

Sam Hudgeons of Damon, Texas, received a loan in September 1961 to cover expenditures for seed, fertilizer, insect control, family living, equipment repairs, gas, oil, and other operating expenses.

Hudgeons farms 380 acres of rented land. All except about 10 acres of the land is under cultivation. He followed closely the recommendations for cotton production, including fertilization according to soil test, early planting and early insect control. Besides cotton he grows corn and grain sorghum.

When Hudgeons took out his loan, his net worth was assessed at $4,500. A year later it had climbed to $7,200.

In 1963, Hudgeons produced 225 bales of cotton on 197 acres of land—almost 1.2 bales an acre. He is on the way to a sound economic position.

During fiscal 1964, FHA also advanced $206,281,000 to 13,558 farmers to enlarge, develop, and buy family farms, and to refinance debts.

In February 1961, the Arnold Radford family, of White Plains, N. C., applied to FHA for a $14,000 loan to refinance some debts; remodel their home; add a feed barn, machine shelter, milking parlor, tobacco barn, and silo; and make some land improvement.

The loan was approved. FHA recommended improved farming, livestock, poultry, and crop practices.

The family's gross income increased from $8,483 to $13,384. Gross income jumped $4,901, farm expenses only $1,399. The outlook is bright for further progress each year.

Developing Recreation Resources

Several USDA agencies are actively helping farm people establish recreation as a "new crop." During fiscal 1964, FHA made 160 loans totaling $1,252,000 for the development of income-producing recreation facilities. In addition, 63 groups of farm and rural residents borrowed $6,500,000 to develop community recreation areas.

On an 80-acre tract in Iowa's Monroe County, a beef cattle farmer, aided by a $7,590 Farmers Home Administration insured loan, has developed a highly successful campsite facility.

Christened "Curfew Acres," the area accommodates mobile homes as well as tents. It offers picnic areas with a shelter house, horseback riding, and buggy riding. It has toilet and shower facilities.

A booming business in recreation now supplements income from cattle. "Curfew Acres" provides a needed service for the area and has brought increased income to business places in nearby towns.

The Soil Conservation Service is also steadily increasing its assistance to soil conservation district cooperators interested in establishing income-producing recreation enterprises. During fiscal 1964, nearly 13,000 cooperators made plans to install one or more such enterprises, a 44 percent increase over the previous year. Of these, more than 1,600 planned to convert their operations primarily to recreation. These enterprises devoted more than 600,000 acres of farm and ranch land to recreation use.

On a winter Sunday afternoon, 300 to 400 people enjoy skiing on the slopes that Arthur Paulson and his two sons, Jack and Rick, cleared out of the woodland on their farm near Lakeview, Mich. Ski runs were nonexistent in the Lakeview area before the Paulsons developed their Brady's Hills area in cooperation with the Montcalm County Soil Conservation District. Now they have 10 runs and plan to expand their facilities to accommodate 1,000 people a day. Besides the local customers, many out-of-state skiers stop to use Brady's Hills on their way to and from the larger ski areas to the north.

Within 4 weeks after Mr. and Mrs. DeLos Six opened their Lazy 6 Lakes fishing

area on their farm near Hillsboro, Ill., they had more than 2,000 paying visitors. Some came from as far as 60 miles away to fish. About 250 spent at least one night camping. In addition to what they paid to enjoy the facilities of Lazy 6 Lakes, the customers bought gasoline, food, fishing tackle, and other supplies from local merchants.

The Department is active also in helping local groups establish community recreation projects. FHA has authority to make association-type loans to rural groups for community recreation projects. And through its Small Watershed Program, SCS provides both technical and financial aid to local sponsors for developing water projects for agricultural, municipal, wildlife, and recreational purposes.

Watershed projects approved for recreation purposes during roughly the past year and a half will add 10,000 acres of water and more than 9,000 acres of land to local public recreation facilities in 19 States. We estimate that these new recreation areas will attract 2.7 million visitors a year for boating, fishing, swimming, picnicking, camping, and allied forms of recreation, and have a favorable economic impact on nearby communities.

Some of the new recreational projects are the product of cooperation among the USDA, the Area Redevelopment Administration of the Department of Commerce, and private corporations.

Loans from the Department of Agriculture, the Area Redevelopment Administration, and a local development corporation helped establish a ski resort near Bedford, Pa.

The resort opened for the 1963-64 winter season. It had a payroll of 131 persons, 88 full-time employees, and 43 part-time. The resort was host to more than 30,000 skiers from throughout the Northeast. Businessmen in Bedford reported business activity tripled normal winter operations. The resort owners expect to increase their number of employees this coming season.

Recreation, of course, is not a cure-all for farm or rural community problems. Our studies clearly show the economic danger of establishing recreational enterprises that are deficient in size or facilities or of locating them in areas likely to lack customers. The operator's ability to attract and keep patrons is extremely important, and this depends heavily on how much the operator enjoys associating and working with people. On the other hand, surveys indicate that many farm recreation enterprises developed as a secondary source of income can eventually become an important or even the primary source of income.

Studies of farm vacation enterprises in Ohio and New England made by our Economic Research Service show that some started with no additional capital investment; in others new investment was substantial. While none of these families is making large profits from the enterprise, income frequently is sufficient to cover farm taxes, help pay living expenses, or buy new home or farm equipment.

Increasing Economic Opportunity

If profitable family farming is one of the keystones of the rural renaissance, nonfarm economic development is equally important.

More Jobs

Rural people are creating vitally needed jobs by attracting new industry

to their areas. One of their most effective tools is the Area Redevelopment Act with its long-term, low-interest loans and grants.

As of December 31, 1964, ARA had helped rural people finance 316 projects that directly created 40,299 new jobs. It has also generated hundreds of man-years of temporary employment in construction jobs to build the factories, the commercial firms, and the public utilities. In addition, some 13,500 RAD projects already completed or in progress have created work for about 372,000 persons in rural areas for a combined total of 412,000 new jobs.

Other Government programs also contribute to diversifying the rural economy. Local people are using the Small Business Administration to help finance small commercial and industrial operations. And public facility loans from the Farmers Home Administration or the Community Facilities Administration are providing the water and sewer systems needed to attract new industry to rural areas.

More is needed, however, than money and credit facilities to bring jobs to rural America, and the USDA is a primary contributor of these services.

Our economic studies indicate the advisability of locating industry in specific areas. Our analysis of the feasibility of establishing a fresh vegetable canning or freezing plant in Jackson County, Fla., provided estimates of the gross and net returns which might be anticipated from such a venture. This study should also be useful to other communities.

It is important to know what effect a new industry is likely to have on a rural community. For example, a new industry in an Iowa rural community substantially increased the area's off-farm income, as farmers and their wives took nonfarm jobs. Most of the added income was used to raise current levels of living, pay debts, or make needed investments in the farming enterprises.

Our industrial specialists work directly with Federal, State, and local rural development groups to help communities evaluate opportunities for establishing and operating agricultural processing plants. These advisors work with engineering, economic, and marketing specialists in the preplanning stages and review final project plans. Our of many conferences has come valuable guideline information for future community planning.

New Enterprises Built on Research

A number of new enterprises capitalizing on achievements of our Agricultural Research Service sprang up across the Nation during fiscal 1964. The manufacture of instant sweetpotato flakes was started at two plants in Louisiana. In Washington, a new fruit and vegetable freezing plant is being constructed to serve the northwest section of the State. The processing of oilseed and feed produced in the Columbia Basin is now being evaluated. In eastern Montana a feed-processing plant to utilize safflower and other locally grown feedstuffs is being established.

New plants for processing black walnuts are being considered in West Virginia. New commercial processes for green chili peppers may provide additional outlets for this high-value New Mexico crop. Construction has been started in Mississippi on a large plant for freezing and canning southern vegetables. Expanded manufacture of pine gum products and new feed-processing opportunities are being veluated in north Florida.

Several cottage cheese manufacturers have started commercial production of dried whey, using a foam-spray process developed by ARS. The whey can be used commercially in such products as baked goods, sherbets, salad dressing, soups, and confections.

A garment factory, recently established through community efforts in North Carolina, may expand its operations by using USDA improved cotton fabrics and manufacturing garments from glutaraldehyde-tanned leathers.

Twenty-nine mills are now producing stretch cotton, using the Department's slack mercerization process.

Forest Service research has also provided the foundation for new economic enterprises:

A new southern pine plywood industry owes its existence to research on forest products, some of it going back almost 20 years. Early research had predicted that the technical problems involved in producing veneer and plywood from southern pine were not insurmountable. The timber supply situation, however, was not favorable and improved equipment was needed if small logs were to be used efficiently. In 1962 new studies of veneer cutting, drying, and gluing provided the know-how for the manufacture of sheathing-grade southern pine plywood. Commercial production began in 1963. A number of new plants are under construction. Others are on the drawing boards. It is conservatively estimated that in 1965 this new industry will provide employment for over 1,500 people, use timber at a rate of perhaps 150 million board feet annually, and produce plywood worth $20 million to $25 million annually.

The Role of Cooperatives

Farmer cooperatives, one of the great instruments of our free enterprise system, are also one of the implements for rural revival. Besides stimulating the economy and promoting general prosperity through their everyday operations, cooperatives are increasingly providing the original impetus for new community enterprises.

The Rural Electrification Administration and its borrowers provide an outstanding example of this increasingly important role. In fiscal 1964, REA gave technical assistance to 553 commercial, industrial, and community facility projects, bringing to approximately 1,178 the number of projects receiving such assistance since mid-1961.

In addition, over this same 3-year period, REA borrowers, on their own initiative, aided local groups in launching 1,213 rural areas development projects. These include 937 commercial and industrial projects and 276 public facilities, such as water systems and hospitals. The direct and indirect effects of these efforts helped create an estimated 100,000 new jobs in rural areas.

More than 90 percent of the capital required in these projects was raised locally, with REA financing providing only about 1 percent of the total. Such loans, made by REA under the consumer fiancing provision of the Rural Electrification Act, totaled $510,000 in fiscal 1964.

To assist cooperatives of all kinds in exercising their essential role of rural leadership, USDA's Farmer Cooperative Service during fiscal 1964 jointly sponsored with the American Institute of Cooperatives four regional member-relations conferences that were attended by more than 400 cooperative leaders.

FCS supervised three Area Redevelopment Administration technical contracts to determine the feasibility of establishing cooperative livestock

feedlots and slaughter plants in North Dakota, Montana, and Oregon.

FCS has undertaken a technical assistance study on cooperative timber management, marketing, and processing designed to help woodland owners in Appalachia. It also helped establish two livestock cooperatives for southeastern cattle producers.

Early in the year FCS and ORAD (now Rural Community Development Service) released a movie on the Cove Apple Packers Cooperative of Morrisons Cove, Pa. This picture, "Plant for the Future," illustrates how the successful development of a cooperative improves a community's economy. The cooperative was started in 1962 after five Pennsylvania apple growers became interested in forming a marketing cooperative with RAD help. Over one-third of a million dollars was spent in constructing the facilities. In 1964 the cooperative had a payroll of $75,000. It bought $100,000 worth of packaging materials and paid out $50,000 locally for hauling apples. By late 1964 approximately 3 million persons had seen "Plant for the Future."

Cooperatives often need credit that may not be readily available from commercial sources. In the past 4 years the Farmers Home Administration has made or insured loans totaling more than $70 million to various cooperative type groups. A new method of helping family type ranchers cooperatively improve their ranching enterprises took shape in fiscal 1964 when FHA loaned $3,268,000 to livestock associations in Montana, Colorado, Wyoming, and Idaho. These loans contribute to community economic development by enabling groups of ranchers to buy or lease large tracts of grazing land.

Better Living

Housing

One out of 11 homes in rural areas is so dilapidated as to endanger the health and safety of its occupants. Of the remainder, one out of five needs major repairs. This estimate is supported by many studies on which these conclusions are based. One in the Appalachia region indicates not only that housing in that region is below average but that the lowest quality tends to be in rural areas and towns of less than 2,500 population.

This is one of rural America's serious problems. Our principal mode of direct attack upon it is through Farmers Home Administration credit.

In fiscal 1964, FHA made rural housing loans totaling $124,434,000 to 13,300 farmers and rural residents for building or improving their own homes or essential farm buildings. Another $8,103,000 advanced for senior citizen and farm labor housing brought the combined loans for rural housing to $132,537,000.

Loans for constructing individual housing units for senior citizens amounted to $6,052,000, 84 percent more than in 1963. Loans totaling $1,167,000 were advanced for construction of rental units for senior citizens. For example, a nonprofit corporation of 250 local citizens in Grove City, Minn., is building a small scale retirement housing project for low-income retirees.

An FHA loan of $182,000 is financing the construction of this project. It has 27 apartments, ranging in size from efficiencies to two-bedroom units. Local residents raised funds through subscription to support the project, which when completed will cost about $200,000.

This project will serve the needs of retired farmers and rural residents. It is near churches and shopping facilities, and only four blocks from the local high

school, which serves as a center of community, social, and cultural life. This housing development will enable senior citizens to remain in the community in which they have spent their working years as well as stimulate the local economy by providing employment for workers engaged in the construction of the facility.

FHA also helped winterize the homes of rural residents, mainly elderly people, by financial grants totaling $4,805,000 for needed repairs to roofs, windows, walls, and floors of their homes.

At a conservative estimate FHA's 1964 loans are providing improved housing for over 50,000 rural people. They created some 10,000 man-years of construction work and a demand for lumber, plumbing, heating and electrical fixtures, concrete, paint, and furniture.

This, of course, barely scratches the surface of the housing need in rural America. The cost of necessary repairs and replacements is estimated at $17 billion and the construction would require 1,360,000 man-years of labor.

Improved Water Supplies

One of the persistent problems in many communities of rural America has been the lack of safe, dependable water.

Our progress in this area is quite encouraging. FHA made loans of $34,007,000 in fiscal 1964 to finance new or improved water systems in small communities. This more than doubled the previous year's record.

It means that approximately 180,000 residents in 271 rural communities, who formerly had to haul water for household use or depend on inadequate and often polluted wells, are now drinking safe piped-in water.

Here is a typical illustration.

For as long as anyone in Crosby (Lowndes County), Ala., could remember, the people had been hard pressed for water. Although they had a deep well drilled in 1955, it wasn't until Christmas of 1963 that the 43 families living in Crosby County stopped hauling water in barrels from a lone spigot standing midway in the village.

A $19,000 FHA loan made the difference. Now water flows from spigots into kitchen sinks and into bathroom facilities. And water is available, too, for protection against fire.

Electricity

Rural electric systems financed by the Rural Electrification Administration now enable millions of residents in rural communities to enjoy the conveniences common to city living. Meanwhile, we are still pressing for electric rates and service comparable to those in the city. Moreover, the systems supported by REA technical assistance and long-term loans are continuing their efforts to reach unserved people in remote areas.

After trying unsuccessfully for years to obtain electric service from a commercial power company operating on Mackinac Island, 2 miles way, residents of Bois Blanc Island in Lake Huron finally saw the dawn of electric living in 1964. Presque Isle Electric Cooperative, Inc., Onaway, Mich., aided by an REA loan, laid a 4-mile long cable to the island and constructed powerlines to serve the 12 year-round residents and 96 part-time residents. The first lines on the 9 by 3 mile wooded island were energized late in 1964.

Bois Blanc Island has scenic lakes and a picturesque landscape. No doubt its

more than 500 property owners will now take advantage of electric power to develop the island's potential. The hotel, sawmill, and machine shop already there look for a new era of prosperity, and other businesses, as well as new residences, are anticipated.

REA now has 988 active electric borrowers. They serve 5.2 million farm families and other rural consumers.

During fiscal 1964, the agency loaned $158.9 million for construction of distribution lines. These lines will serve 144,641 new rural consumers and meet the increasing demand of older consumers. In addition, loans totaling $102.1 million were approved for generation and transmission facilities to assure adequate supplies of power for borrower distribution systems. The rural electric systems sold 37.3 billion kilowatt-hours of electricity during fiscal 1964, about 11 percent more than the previous year.

We are proud of the fact that 111 electric borrowers reduced their rates during fiscal 1964. This will save rural consumers $2.5 million annually on their power bills. Only nine borrowers had to increase rates to avert deterioration of service. Nevertheless, consumers on REA-financed lines still pay, on the average, about 24 percent more than urban consumers for their first 250 kilowatt-hours of electricity. This is due to the handicaps inherent in serving rural areas: Low density, low revenues, lack of large industrial loads, and isolated load centers.

During the year our borrowers passed the $2 billion mark in principal and interest payments to the Government on the $4.5 billion of loans advanced to them. They have now repaid $1,143 million of principal as due, plus $237 million of principal paid ahead of schedule, and interest amounting to $659 million. It is an excellent record.

Telephones

Telephone subscribers, spurred by the revolution in agriculture and the growing rural renaissance, are pressing for modern telephone service. Four-party service generally has superseded eight-party service as standard and in some cases total one-party service is being requested. We are doing our best to meet the new demands.

Northwest Telephone Cooperative Association, Havelock, Iowa, which received an REA loan in mid-1963 to provide one-party service to 271 subscribers and five-party service to 359 subscribers, is building the system all one party. Further engineering studies showed that one-party service was within the reach of all subscribers and that the time saved by ready communication was worth the increased cost.

A new milestone in service to rural consumers in the 15-year old telephone program was reached on November 4, 1963. On that date the billionth dollar in telephone loans was approved in a loan to Norway Rural Telephone Company, Kanawha, Iowa. At the end of fiscal 1964, total telephone loans had climbed to $1,078 million. There were 838 borrowers, 616 commercial companies, and 222 cooperatives.

The $90 million in telephone loans approved during fiscal 1964 will provide new or improved telephone service to 105,899 subscribers. About 1.6 million homes and other establishments are now being served by REA-financed telephone systems. Of these, 99 percent are dial. Seventy-nine percent of U.S. farms now have telephones.

Interest and principal paid by telephone borrowers amounts to about $146.4

million on advances of $877 million. Payments include $70.1 million of principal as due, $9.3 million of principal paid ahead of schedule, and interest of some $66.9 million.

Education

Many problems of rural areas are associated with educational deficiencies. Generally speaking, schools in the country are poorer than in the city, teachers have less training, courses of study are narrower, and standards are lower. Undoubtedly these are factors in the higher rural school dropout rate.

One study by our Department, covering 30 States, showed 400,000 dropouts among 1.3 million rural youths of high school age. Most of them left school when they finished the eighth grade. Only 2 percent quit because they were unable to make acceptable grades.

Many students—nearly two out of five—left school because they had lost the desire for additional education.

Investigation reveals that high dropout rates from school are most often associated with low parental levels of education, occupations, and income. Thus, there is a vicious circle of poor education leading to poor income for parents, with this in turn occasioning a high percentage of dropouts.

Special local area studies conducted by the Department in cooperation with the land-grant colleges point to education as a dominant factor in the degree of economic success achieved by rural migrants in the cities. A study of the population of Des Moines, Iowa, indicates that most of the disparity in occupational and income status between persons of rural or urban origin is connected with education.

Another survey reveals that the average rural high school senior scores below the national average on six of eight job aptitude tests. Obviously the education system in rural areas has not been preparing students adequately for the available jobs.

It should be noted, however, that progress has been made since 1950 both in reducing school dropouts among rural youth and in narrowing the rural-urban education gap. This is particularly true as regards rural Negro youth.

We know from other studies that improvements of human resources are possible through higher educational standards, through technically oriented basic training and retraining programs, and through the development of national trade and technical schools so that rural youth may have access to such training.

Much is hoped for from Title I of the Economic Opportunity Act which is specifically aimed at developing the skills of youth between the ages of 16 and 21. The Job Corps which was established to provide education, work experience, and vocational training for these young people in need of employment and more training could be very valuable. Many of these youths will work from rural conservation centers set up on the National Forests. The work they will perform will benefit themselves, the forest resources, and the communities near the camps. In this phase of the war on poverty, the Forest Service plans to have 43 camps in operation by June 1965 to accommodate 8,000 enrollees.

The work-training programs provided by the Economic Opportunity Act that will enable these young men and women to resume or continue their education and the work-study programs that will provide part-time employment for students will also help close the education gap.

In addition, the Manpower Development and Training Act and Area Redevelopment Administration training programs continue to train workers in new skills sought by employers in our modern, automated society.

Education, of course, is broader than academic learning. Rural America needs education also on current public issues. We depend on Extension to fill a large measure of this requirement.

In Stillwater County, Mont., land reclassification was a hot issue. Statewide taxing changes—compounded by the closing of a chrome mine that had formerly provided one-seventh of the county's total tax revenue—made necessary a drastic land reclassification. The county Extension agent organized nine public meetings to lay the facts before taxpayers. As the Billings Gazette put it, "Taxpayers may not have paid in joy, but they did know more about why they paid and why reclassification was necessary."

In Maine, Extension enabled some 40,000 persons to take part in self-administered discussions evaluating their local school systems and the role of vocational training and advanced and continuing education in a developing economy.

In February 1964, about 60,000 persons in New York State participated in what one newspaper called "a new kind of a course in civics." Extension used the third stage of "Operation Advance"—a continuing small group discussion series on overall development—to build better understanding of the complex changes and decisions facing community leaders.

When public decisions must be made, whether on local zoning, tax issues, or community development programs, this kind of education is the essence of democracy.

Comprehensive Resource Development

In many parts of the United States, area- or region-wide resources programs are essential to provide a sound basis for community development. Without such programs, not only individuals and groups, but also entire communities, may lack the basic foundation for sound economic expansion. Planning for such region-wide development of resources is under way in rural-urban areas of the Northeast, the northern Great Lakes area, Appalachia, and the Ozark region. Several USDA agencies are directly involved.

We launched a pilot rural renewal program during fiscal 1964 which will enable Farmers Home Administration to increase its assistance to depressed rural areas. Area renewal loans amounting to $950,000 were made to county development authorities in Florida and Arkansas.

The Soil Conservation Service is participating actively with local committees and interagency groups in this broad resource planning. Data and resource maps based on soil surveys, the Conservation Needs Inventory, and other technical information are of the utmost importance in this effort.

Many soil conservation districts have broadened their programs to include district-wide resource development and associated measures. At the close of fiscal 1964, 1,319, or nearly half, of the districts had adopted modernized programs and signed new basic memorandums of understanding with the Department covering such broadened activities.

Resource Conservation and Development Projects

Under authority conferred by the Food and Agriculture Act of 1962,

the Department assists in formulating resource conservation and development projects. Initiated and sponsored by local people, these projects are intended to enlarge economic opportunity through the conservation, development, and utilization of area resources.

Ten pilot projects have been designated for USDA assistance. They affect the combined areas of over 170 million acres and include parts of 33 counties in 10 States. The Soil Conservation Service has assigned a coordinator to each of the 10 projects and is making specialized technical assistance available in work plan preparation.

The work plan of the West Central Minnesota RC&D Project, first to be approved, calls for expenditure of about $4½ million in a 2.4 million-acre area for conservation and development of natural resources. Most of the funds would come from local sources and going Federal programs. The developments planned include expansion of forestry assistance on private land and establishment of a woodchip plant; construction of 43 recreation and wildlife dams; public parks and improved fishing waters; development of pastures for beef cattle on eroded farmland; and establishment of an alfalfa dehydrating plant, a sugarbeet plant, and a number of other processing industries.

Estimated returns from the PRI-RU-TA Headwaters RC&D project in North Central Wisconsin will add $2½ million annually to the economy of Price, Rusk, and Taylor Counties. A major objective is the construction of 26 new flowage lakes of 50 acres or more to be developed for recreation use. Many smaller lakes will also be constructed and income-producing recreation enterprises set up on farms and other private land. Supporting measures include improvements on existing Lake Flambeau, establishing camps and parks, utilizing and marketing forestry products, and developing the region's natural, scenic, and historic sites.

Water Resource Development

River basin surveys and investigations provide an important basis for coordinated resource planning in a growing number of large areas with interrelated water problems.

In line with the recommendation of the Senate Select Committee on National Water Resources that comprehensive river basin plans be developed for all major river basins by 1970, the Department cooperated during the year in 30 river basin surveys and investigations with other Federal and State agencies. Overall departmental responsibility for these surveys is delegated to the Soil Conservation Service. The Economic Research Service and Forest Service are other USDA participating agencies.

Watershed Protection (Public Law 566)

Ninety-six small watershed projects were approved for operations under Public Law 566 in fiscal year 1965. Not only is this the largest number in any year since the program was initiated, but it is also the third year of an upward trend. Since June 30, 1961, there has been an 82 percent increase in project approvals.

A total of 569 projects have been approved for Federal assistance in installing works of improvement. Federal help is thus assured for technical assistance in planning and installing land treatment measures and in making the engineering surveys and designs required in advance of construction.

All land treatment and structural measures have been completed for 66 projects in 29 States. Eleven projects were finished in fiscal 1964. In another 41 projects structural measures have been completed.

Sponsoring local organizations continue to recognize the increased benefits that come from multiple purpose projects. About 44 percent of the 569 projects in operation now combine the objectives of flood prevention with such other purposes as recreation, fish and wildlife conservation, irrigation, drainage, and municipal water supply. A year ago this figure was 38 percent. Three-fifths of the projects newly approved in 1964 were multiple purpose.

While the net effect of water programs cannot be accurately measured in dollars, there is no doubt but that the returns far exceed the costs.

Conservation Needs Inventory

The Inventory of Soil and Water Conservation Needs is an important tool in community and regional resource planning. Among other purposes, it is used extensively in river basin surveys by the Economic Research Service and Corps of Engineers to determine land conditions, production potentials, and yields by land capability units within river basins. These data were developed for use in the Connecticut River Valley, Upper Mississippi River Region, and the Missouri River Region.

We are developing procedures for updating the Inventory and keeping it current. Some basic soil data from sample areas were refined during 1964.

Soil Surveys

Also basic to all land use and resource conservation and development planning, both on individual properties and in project areas or regions, are the soil surveys made by the Soil Conservation Service in cooperation with State agricultural colleges and other agencies.

During fiscal 1964, soil mapping was completed on 65,796,504 acres, bringing the total to 822,581,976 acres—more than half the non-Federal land and more than a third of the total land area of the United States.

Soil surveys are increasingly helpful in land use planning in urban and urban-fringe areas. Many local planning commissions and consultants are entering into cooperative agreements to cost-share soil surveys. In 1964 SCS had 37 such agreements.

Several States have appropriated funds to accelerate soil surveys and some outside agencies, such as the State Department of Commerce in Massachusetts, have published maps and reports made by SCS for planning agencies.

In 364 urban expansion areas, soil surveys are in progress as part of regular soil conservation district operations. Fieldwork has already been completed in 125 of these areas and surveys have been published in 79. Surveys will be started in 29 new urban expansion areas during fiscal 1965.

SCS has been helping Rochester, Strafford County, N. H., with soil and water conservation problems since 1959. The agency developed a table for the county showing soil characteristics and interpreting them for nonagricultural uses.

In addition, SCS has worked with the city council and planning board on soil and water information for zoning purposes; with the mayor and recreation committee on planning a 55-acre recreation area; with the Public Works Department on soils information and shade trees suitable for planting in the city; with the school site committee on selection of eight proposed school sites; and with a local church in locating a new site.

Great Plains Conservation Program

The Great Plains Conservation Program is designed to stabilize the agriculture-based economy of the drought-hazard region in 10 Plains States. It continues to draw strong support and is moving forward to the limit of available funds.

Out of the 422 counties authorized to participate in the program, 392 had been so designated by June 30, 1964. Landowners and operators signed 3,719 contracts covering complete conservation plans on 5,453,644 acres during the year. This brought the total to 16,121 cost-sharing contracts covering 33,882,548 acres. A backlog of 4,732 applications awaiting technical and financial assistance was carried over to the new fiscal year when new appropriations would become available.

Establishment of the conservation practices called for by the contracts also moved forward at an accelerated pace. The total amount of cost-shares paid was $8,951,720, a 27 percent increase over the $7,069,570 the previous year.

Permanent vegetative cover continued to be the most important practice in the program. This accounted for $1,559,798 of the cost-shares paid. Participants established or reestablished 185,656 acres of new vegetation under this practice, compared to 161,800 acres in 1963.

The first Great Plains Conservation plan and contract signed in South Dakota was completed in 1964 by Emil Bergner and his son, Lawrence, who farm south of Chamberlain. They had signed the contract in March 1958. The plan included range reseeding, stockwater dams, cross fencing, and over 5 miles of terracing on their 1,834-acre livestock enterprise. The Bergners were cooperators with the Brule-Buffalo Soil and Water Conservation District long before the Great Plains Conservation Program was set up; but they had experienced difficulty in progressing with their plan as rapidly and steadily as they wished. The new program they found tailor-made to their needs.

Besides the increased carrying capacity and larger profits the program has brought, the Bergners consider the additional wildlife protection and recreational facilities highly important. Lawrence Bergner says: "Our conservation program has made our unit more stable for our livestock enterprise, but more than that, it has helped make living more enjoyable for the entire family."

Forestry

The Forest Service's regular cooperative work with the States is an important facet of the whole flood prevention and watershed protection complex. During 1964, FS assisted 13,010 landowners and operators in correcting undesirable watershed conditions on their lands. Forest Service work with States and other Federal agencies included 18 river basin studies and watershed improvement planning on 112 small watersheds.

Forest Service management activities such as timber harvesting, recreation and wildlife habitat development, timber stand improvement, and road construction all contribute directly to rural resources development.

For example, the Service cooperates with the States in providing assistance for planting trees on State and private lands in need of reforestation. Throughout the country in 1964, planting or seeding was done on 1,074,964 acres of State, county, and private lands. Windbarrier planting for the protection of farmlands was done on 40,445 acres, mostly in the Plains States.

During the year, the Service participated in investigation and review

of 107 forest-based industry and recreation projects and 21 technical assistance projects, and served on State Technical Action Panels in all 50 States.

The Department's programs, obviously, are having a major impact on the character and development of rural America. The beauty of America, the bounty of America, and the opportunity of America go hand in hand.

Just as there is no really valid excuse for poverty in the midst of history's greatest abundance, so there can be no really persuasive justification for lack of opportunity in an economy which is the most productive in history.

The task we face is to provide opportunity for better incomes for farm and rural families; better jobs for those now underemployed; and new jobs for the youth now growing up in rural America. Rural poverty is with us still—but not to stay! This is the meaning of rural renaissance.

SERVING ALL CONSUMERS

The Age of Abundance has given our nation—and our generation—man's first chance to build the Great Society.

Like all change, however, abundance creates a need to adjust to new opportunities and solve new problems. The Department of Agriculture has risen to this challenge; it is serving the whole Nation through a great variety of money-saving, health-preserving, comfort-producing consumer services which help Americans everywhere take better advantage of the Age of Abundance.

Actually, two dollars out of every three spent by the USDA in fiscal 1964 provided services of greater and more direct benefit to the general public than to farmers. Only one dollar in three was spent for price support, income stablization, and other programs of which farmers are the primary beneficiaries.

Nowhere are the effects of America's Age of Abundance more evident than in the food economy.

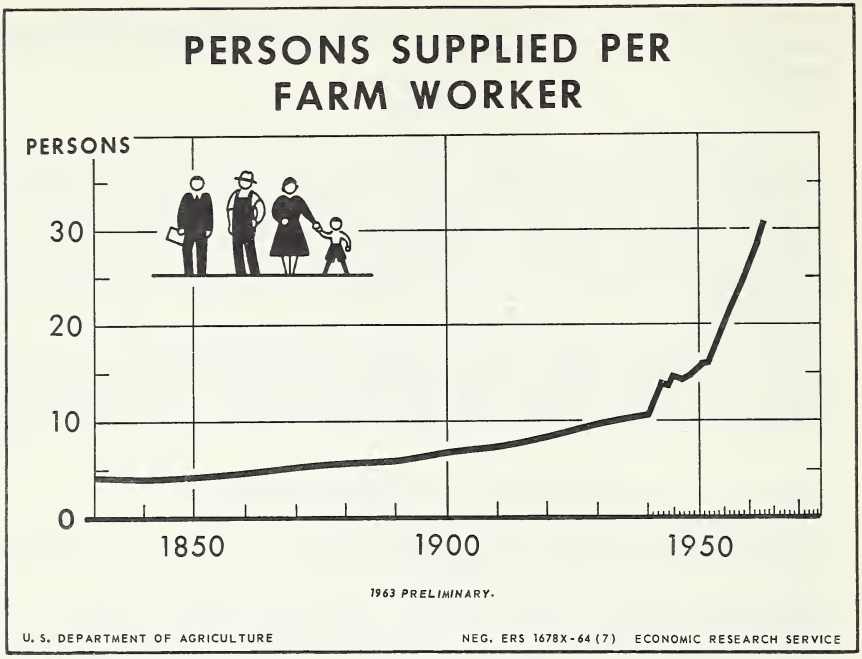
Food is one of the best bargains American consumers have today.

Less than 19 percent of U.S. personal income after taxes is spent for food. Fifteen years ago, food expenditures took a fourth of the average family's take-home pay. Today in England or France the average family puts 30 percent of its spendable income into food—and a Russian family budgets half or more for that purpose.

Admittedly, the advantages U.S. consumers enjoy in food are due to the whole complex of the American economy. But the paramount factor is the success of our agriculture.

American consumers enjoy better food at bargain cost because of a fantastic increase in farmer productivity. Each person in agriculture now produces on the average enough food and fiber to supply the needs of 31 persons, compared with 15 only 15 years ago. To put it another way, he produces as much in 1 hour today as in 2¼ hours a decade and a half ago. Since the late 1940's, cost of living items other than food have jumped 35 percent—food has increased only 25 percent.

Actually, the *farm* price for food has *declined* about 15 percent. The entire increase in retail food prices is due to a rise in distribution costs.


PERSONS SUPPLIED PER FARM WORKER
PERSONS
30
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1850
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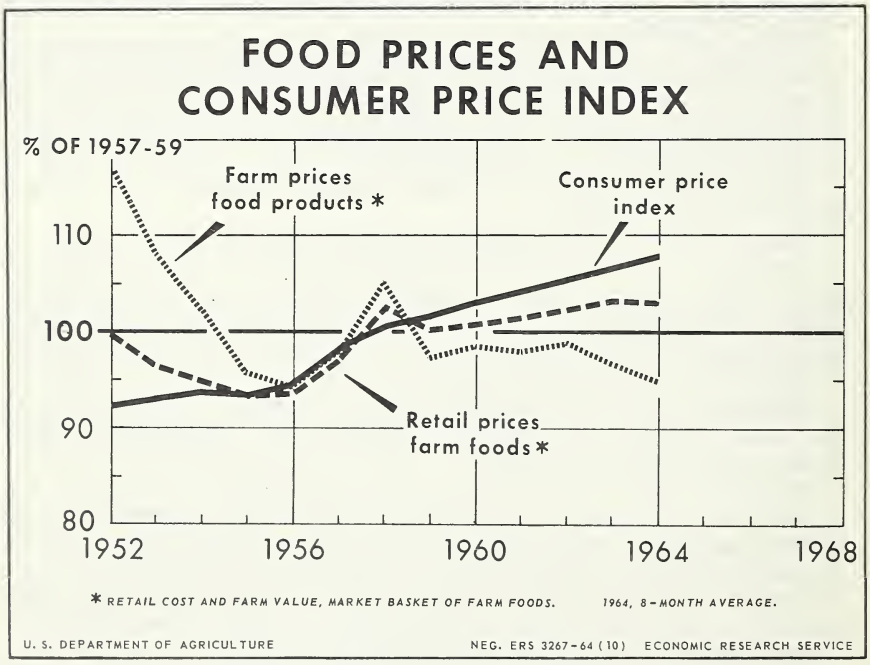
1963 PRELIMINARY.
U. S. DEPARTMENT OF AGRICULTURE
NEG. ERS 1678X-64 (7) ECONOMIC RESEARCH SERVICE


FOOD PRICES AND CONSUMER PRICE INDEX
% OF 1957-59
Farm prices food products *
Consumer price index
110
100
90
80
Retail prices farm foods *
1952
1956
1960
1964
1968
* RETAIL COST AND FARM VALUE, MARKET BASKET OF FARM FOODS.
1964, 8-MONTH AVERAGE.
U. S. DEPARTMENT OF AGRICULTURE
NEG. ERS 3267-64 (10) ECONOMIC RESEARCH SERVICE

This trend continued in 1964. While the farm value of food in the "market basket" was fractionally less than in 1963, the cost of marketing it rose about 0.5 percent. This, however, was the second smallest rise since 1950.

American consumers today enjoy a higher quality diet than years ago—more meat, less bread, for example. We consumed in 1964 over 100 pounds of beef per person, compared with 66 pounds 15 years ago.

In securing for America the boon of agricultural abundance, USDA's programs of research and education, electrification and conservation, price and income stabilization, have contributed notably. But to enable our people to seize the advantages of abundance, other programs and services are also required.

Abundance—Problems and Opportunity

Today's typical big supermarket has 6,000 or more items on its shelves; some 85 different kinds and cuts of meat, for example, not counting cold cuts. One store surveyed recently had 262 different combinations of can sizes, brands, and varieties of canned vegetables alone.

A whole new food vocabulary has recently sprung up and is still developing. Foods are concentrated, frozen, dehydrated, dehydro-frozen, irradiated. They require new kinds of storage, new kinds of packaging, often new standards of identity. Most food items today are different products, differently packaged than only 10 years ago.

Sizes, weights, grades, labels, brands, price, safety, service—all these the housewife—the major American buyer—must calculate to get the best value for her dollars.

In this, she needs the help of improved and new USDA consumer programs.

During 1964 we cooperated closely with the Committee on Consumer Interests and participated actively in consumer conferences in various sections of the country.

Several new tools are making USDA's consumer services better known and more readily available. We issue weekly Food and Home Notes to the press and to about 600 radio and TV stations, 1,100 industry outlets, and more than 3,000 county demonstration agents.

"Service," a monthly newsletter initiated during fiscal 1964, keeps consumer organizations, women's clubs, garden clubs, business house organs, the labor press, and other groups up to date on our activities.

"A Consumers Guide to USDA Services," published in March 1964, outlines the most important of our consumer aids. We have had up to 8,000 requests in a single day for this 50-page pamphlet.

During April 1964, we put on a Food and Home Fair and Consumer Symposium, with demonstrations of the services USDA provides. Besides attracting many thousands of local visitors, the Fair was publicized and acclaimed by some of the Nation's most widely read publications.

The Department of Agriculture in short serves not farmers alone but all consumers.

Stabilizing Consumer Prices

Even the one dollar in three spent to support farm prices and stabilize farm income brings substantial benefit to U.S. consumers, for the support

and stabilization programs are an indispensable bulwark of the American agricultural economy. Without them the Nation's food supply would be much less secure than it is today, and consumer costs for food would be far less stable.

My report for 1963 showed how the sugar program helped prevent runaway sugar prices when a speculative movement in early 1963 stimulated some consumers to stockpile that commodity.

Wheat and Bread Prices

In 1964, as the national wheat program shifted to a new basis, there was some concern about the possible impact on bread and other bakery products.

By mid-autumn of 1964, it was readily apparent that fear of a bread price inflation was completely unjustified. The national average price for bread continued virtually unchanged. Actually, the average bread price in representative cities varied only one-third of a cent per loaf during the year. Prices for other wheat bakery products were also generally unchanged.

The rather violent debate over the issue of wheat and bread prices emphasizes a fundamental misunderstanding about the relationship of farm prices to consumer prices for many food products. Our highly developed distribution system takes more and more of the consumer food dollar. Farmers in 1964 received only 37 cents out of the average dollar spent for food. This compares with 50 cents a decade and a half ago.

The prices farmers receive are becoming less and less a factor in retail food prices. The farmer gets about 2½ cents for the wheat in the flour needed to make a 1-pound loaf of bread. This has changed little in the past 15 years. Average bread prices, on the other hand, have risen from a little under 15 cents a loaf to more than 20 cents. Even if the farmer donated his wheat, bread prices would be affected to the extent of only a little over 10 percent.

The aim of one aspect of the new wheat program is to maintain farm prices for wheat used for domestic food at about the average level farmers have received since 1950. The aim of another aspect of the program is to bring about a better balance between supplies and needs.

"Stability" in the wheat industry is of vital importance to farmers. It is of no less significance to consumers and taxpayers.

Food Services

More Value for Food Dollars

American housewives are dollar conscious. In food buying especially they seek an ever better combination of quality and prices. Many USDA services are available to help them.

A survey of food buying and food prices over a 3-month period in Greensboro and Burlington, N. C., showed how a housewife with a family of four could cut her weekly food bill by 10 percent. How? By shopping around for the food specials in her neighborhood. She could save about 6 percent just by buying the lowest priced brands in the same store on the same day.

If she needed to cut the family food budget sharply, she could save one-third or more by changing the quantities of the different foods purchased. This would mean buying less meat as well as less expensive cuts, and substituting more cereal products and fruits and vegetables in plentiful supply. While the meals would be less fancy and would probably require more kitchen preparation, they would completely satisfy nutritional needs.

Consumer Reactions

Our Statistical Reporting Service continually studies consumer reactions to agricultural products or end products, thus providing industry a valuable guide in its efforts to satisfy consumer needs and preferences. Recently published results show that dehydrated sweetpotato flakes (newly developed by the Agricultural Research Service) are popular with housewives for both convenience and flavor. Studies are currently seeking consumers' opinions on noncitrus fruit, poultry, and cotton and other clothing fibers.

Better Quality

Consumers can get more for their money by the wise use of USDA food grades. We are seeking to impress more consumers with the knowledge that grade standards are yardsticks for measuring quality. The housewife buying beef, for example, can pick out U.S. Prime, U.S. Choice, U.S. Good, according to the price she wishes to pay and the kind of meat dish she has in mind.

We work constantly to improve the grade standards in use and issue new ones as they are needed. The following are some of the actions taken along this line in fiscal 1964.

Requirements were tightened for top quality U.S. Grade AA (Fresh Fancy Quality) and U.S. Grade A eggs.

A major revision was made in U.S. standards for apples. Standards for almonds, sweet peppers, radishes, table grapes, canned grapefruit juice, canned pears, and canned tomatoes were also revised as well as those for use in grower-processor contracts on potatoes, tomatoes, and mushrooms going into processed products.

Consumers will find fewer pits in their cherry pies, because the tolerance for pits in canned and frozen red tart cherries was cut in half. A separate grade was designated for frozen french fries for institutional use—to help provide both homemakers and institutional users with the kind of product they want.

The first major revision of U.S. wheat standards in nearly 50 years was put into effect, giving a better measure of quality and providing a better basis for export sales and domestic trading.

New "cutability" standards for beef were proposed. These would provide a new means to identify differences in yields of retail cuts from beef carcasses. Studies were started to develop cutability standards for live cattle, lamb, and mutton. Several studies are being conducted cooperatively with State universities.

In addition, we conducted field tests on proposed standards for grades of feeder cattle, drafted standards for grades of feeder pigs, and, in cooperation with the Virginia Department of Agriculture, developed trial standards for dairy heifers, to be used as a basis for buying and selling.

Grading

During the fiscal year more than 10 billion pounds of meat and meat products were officially graded, including 53 percent of the total beef slaughter and half of the total lamb slaughter; also about 5 billion pounds of ready-to-cook poultry (more than 65 percent of farm sales); over a billion dozen shell eggs (22 percent of production); and 5.7 billion pounds of butter, cheese, and nonfat dry milk (a volume equal to half these products produced in the U.S.)

In addition, farmers and the food industry marketed under U.S. grades more than 1¼ million carlots of fresh fruits and vegetables, plus 75 percent of all frozen and 25 percent of all canned fruits and vegetables.

Most of the grain sold off farms was inspected and graded under the (mandatory) U.S. Grain Standards Act; nearly 72 million 100-pound bags of rice were inspected; and nearly 20 million samples of cotton were classed, representing about 96 percent of total ginnings. Micronaire readings, which determine the fineness of cotton fibers, were furnished throughout the Cotton Belt this past fiscal year on a fee basis.

All tobacco sold at auction was graded—a total of more than 2.3 billion pounds—plus 12 million pounds of cigar tobacco and 512 million pounds of re-dried tobacco.

Meat and Poultry Inspection

USDA protects consumers by inspecting for wholesomeness all the meat and poultry that moves in interstate commerce. This meant that roughly 114 million meat animals were slaughtered under inspection in fiscal 1964. Altogether between 80 and 85 percent of all the beef, veal, pork, lamb and mutton sold commercially in the U.S. was federally inspected.

An increasing number of packing plants are coming under Federal inspection. In the past 6 years, the number of establishments under inspection has increased by about one-third.

Consumers ate nearly 6½ billion pounds of ready-to-cook poultry in fiscal 1964 with assurance that it was wholesome, clean, healthful food. Under the mandatory poultry inspection program, each bird is carefully examined inside and out at time of slaughter by a qualified Federal inspector. The volume inspected represented 87.5 percent of U.S. poultry production, compared with 84.7 percent the previous year.

Besides the original inspections, some 1½ billion pounds of poultry were reinspected in cut-up form, or as convenience products such as frozen and canned poultry foods.

Although the volume of poultry inspected rose more than 8 percent in fiscal 1964, we handled the increased workload with less than a 3-percent increase in the inspection force.

As a further protection to consumers, we issued regulations governing the minimum amount of poultry meat which must go into such federally inspected, prepared poultry products as prepared dinners, pies, patties, and fricassees. This regulation, assuring more meaningful labeling and preventing the sale of these products under false, misleading, or deceptive names, became effective January 1, 1965.

Sharing Abundance at Home

We have made impressive progress in recent years in meeting the food needs of poverty-stricken adults and children. This progress is being stimulated by a new awakening to the vast need that exists and the inadequate resources thus far devoted to the problem.

Though our people surely are better fed than the citizens of any other major country, millions are still malnourished. U.S. food abundance morally obliges us to do everything practicable to wipe out malnutrition among the poor and among children.

Food distribution programs administered by the Agricultural Marketing Service improved diets for one out of every five Americans during fiscal 1964.

School Lunch Program

About 16 million children—one-third of all pupils in elementary and secondary schools—shared in the National School Lunch Program. Among them were 65,000 children in "pockets of need" in 14 States who obtained lunches free or for a few cents because of special assistance to selected needy schools.

For the first time since she's been in school this little Kentuckian is getting a hot, nutritious lunch

Cooperative Federal, State, and local efforts made it possible for some 7,500 children in 288 rural and urban schools in eastern Kentucky to have lunches at school for the first time in their lives. Extension of the lunch program to similar schools is being attempted in more than a dozen States.

This was a noteworthy start—but only a start—toward making School Lunch available to the two-thirds of all elementary and secondary schoolchildren not now participating, many of whom urgently need this help.

Not only many rural schools but also a substantial number of urban schools have no lunch facilities. Where the buildings are old and in congested, low-income neighborhoods and communities, installing a school kitchen often is not feasible. The problems and costs involved in central preparation and distribution of several types of lunches that would meet nutritional requirements of the National School Lunch Program are being studied.

Special Milk Program

The Special Milk Program provided milk for children at reduced cost, or free for the needy, in about 92,000 schools, child-care centers, summer camps, orphanages and similar institutions. The 2.9 billion half-pints of milk served under the program, added to the 2.7 billion half-pints of milk served with the meals under the National School Lunch Program in fiscal 1964, represented more than 5 percent of all fluid milk moving from U.S. dairy farms to consumers.

Many children participate in both the School Lunch and Special Milk Programs. We estimate, however, that about 14 million children who do not participate in the School Lunch Program benefit by the Special Milk Program.

The value of fluid milk consumption per pupil in public schools increased from about $8.94 in the 1957-58 school year to about $10 in 1962-63. During the same period, the number of public school children having access to school milk rose to 38 million. The wholesale value of all foods used in school lunchrooms has increased 56 percent since 1957-58 and this is now a $1 billion market.

The Food Stamp Program

The Pilot Food Stamp Program, operating in 40 counties and 3 cities in 22 States during fiscal 1964, enabled a peak of 392,000 persons to buy more and better food through normal trade channels using Government-subsidized coupons. The Federal Government contributed over $28 million toward these food coupons, supplementing the $45 million spent by participants in the program as their share. The Federal contribution increased food purchasing power for low-income families, stimulated business activity in food stamp communities, and expanded markets for farm products.

Retail food store sales rose 7 percent (seasonally adjusted) after the Food Stamp Program was begun in Avoyelles Parish, La. Meat sales rose substantially.

The Food Stamp Act, passed by Congress in August 1964, promises greater opportunity for low-income people to upgrade their diets with increased food buying power. We anticipate that in the next few years as many as 4 million persons will be participating.

The Family Food Donation Program

The family food donation program reached more than 6 million needy persons in fiscal 1964, and offered them a greater variety of food than at any time in recent years. Fifteen commodities were available for donation: Flour, corn grits, cornmeal, rice, lard, nonfat dry milk, canned beef, chopped meat, butter, peanut butter, cheese, dried eggs, dried beans, bulgur, and rolled wheat. The retail value of these commodities distributed totaled about $8.80 per person per month. Over 1,500 counties in 48 States participated in the food donation program, and efforts were renewed to reach needy families in even the remotest "pockets of need."

Plentiful Foods Program

We maintained maximum effort in working with food trade groups and food service organizations to help sell plentiful supplies of foods through normal trade channels. The Agricultural Marketing Service conducted regular monthly merchandising programs for such foods. Seven special nationwide campaigns were conducted, the most intensive being for beef. The other national campaigns were for milk and dairy products, wheat flour, potatoes, pecans, canned corn, and canned tuna, (part of our cooperative work with the Department of the Interior). In addition, 30 regional promotions were conducted for plentiful foods in various areas of the country.

Helping Low-Income Families

A considerable part of the Nation's population, in city and country alike, lives in poverty amid plenty. An even larger part, while not impoverished, needs to budget carefully to make ends meet.

It is estimated that about one-fifth of U.S. families and unattached individuals have incomes of less than $3,000 a year. About half have incomes of less than $6,000 a year. In these families information that will contribute to wise management of finances is especially urgent.

In support of the "war on poverty" USDA food economists have prepared family food plans for nutritionally balanced meals at four different cost levels. These help homemakers choose the right foods in the right amounts at prices they can afford.

The Extension Service seeks to bring this and other information to those who need it. A 1964 national survey indicated that one-third of Extension agents' time was spent helping low-income people.

Extension home economists working with Latin-American homemakers in several low-income housing units in El Paso, Tex., found that the use of economical dry milk increased 30 percent during an 18-month nutrition education campaign.

Welfare clients receiving surplus food frequently do not know how to use it to best advantage. Home economics agents have spearheaded educational efforts to help them.

The Extension home economist helped the health nurse in Caddo and Kowa Counties, Okla., teach Indian mothers, who brought their children to a "well-baby clinic," how to keep the entire family well nourished by making the best use of surplus food.

In San Miguel County, N. Mex., the home agent conducted educational programs on nutrition and budgeting for food stamp recipients. Working with Agricultural Marketing Service, she prepared mass media information, held classes for both recipients and welfare case workers, conducted marketing tours to local stores, and visited in homes. Followup studies indicate that the food stamp recipients now plan and prepare more nutritious meals than many of the people not participating in the program.

In Kentucky, the Cumberland County Extension home economist taught surplus food recipients to grow or purchase those fruits and vegetables most needed to balance the diets.

Not only do we teach people to help themselves; we teach them to teach others.

The Milwaukee (Wisconsin) Department of Public Welfare leased an apartment in an urban housing project and turned it over to Extension home economists as a demonstration center. Furnished with second-hand furniture, it soon became a community center. Classes on management (food buying, nutrition, budgeting, clothing, and home furnishings) were held for homemakers.

A home economics agent, working with the Milwaukee County Department of Public Welfare, developed a 2-month training course for home management aides, preparing people on welfare rolls to teach others economical buying and preparation of food, money, and credit management, child care, and selection and care of family clothing and household articles. Of the 155 who took training, over two-thirds were certified as qualified aides. Twenty found private employment and are off welfare rolls (saving the county $48,000 in 1 year); 48 others became active home management aides, working for the Welfare Department by demonstrating to welfare clients the same kind of practical lessions they had learned.

An Extension home economist began work 2 years ago in Boston's Cathedral Housing Project. Since then volunteers have come forward from among the residents to help conduct demonstrations and teach. Homemakers were organized into study groups. They not only learned more about nutrition and the use of inexpensive and healthful foods; they are feeding their families better and less expensive meals.

New Products

Food

USDA scientists have developed many new or improved foods: Frozen orange juice, instant white potato and sweetpotato flakes, the family-size turkey, bacon, ham, and pork chops that have more meat and less fat.

New foods moving from Agricultural Research Service laboratories toward commercial manufacture and consumers' grocery bags in 1964 included dried citrus juice powders and instant pumpkin powder. "Explosion puffing" has created instant blueberries, carrots, turnips, beets, apples, and apple sauce.

Diet-conscious consumers will benefit from a new method for making low-fat ripened cheese. Soft, mellow, and mild-flavored, the new cheese contains less than a sixth the butterfate in the Cheddar cheese it somewhat resembles.

Our scientists have been cooperating with the United Nations Children's Emergency Fund (UNICEF) to supply food protein from cottonseed and soybeans. Their research has produced a full-fat soybean flour

that can be made using simple, mobile equipment. It is being evaluated as food for children in Taiwan and Indonesia.

Research in a particular field often leads to valuable related achievements.

Seeking to improve berry production, scientists opened the way to development of improved blueberry hybrids. They then developed an experimental machine that cuts the cost of harvesting cultivated blueberries from 8 cents a pound to one-half cent a pound.

Again, scientists seeking better livestock feeds developed a simple, routine test for determining the amount of available lysine (an essential amino acid of proteins) in oilseed meals. In efforts to make a bland and palatable meal for livestock from crambe, a promising new crop, researchers isolated compounds responsible for crambe meal's undesirable flavor.

Engineers developed an electronically controlled system that automatically removes silage, grain, and concentrates from storage, blends them into a balanced ration, and delivers the ration to beef cattle on any desired schedule.

In still another significant advance, an ARS scientist measured exactly how each part of a plant uses sunlight in growth. Such knowledge can help breeders develop plants tailored to use light effectively, and agronomists and farmers decide on the most efficient plant spacing, livestock grazing, and other management practices.

Housing

Our new products and other services to consumers extend far beyond the food area. A few years ago we planned a time-and-step-saving kitchen that has proved extremely popular with housewives in country and city alike. Now, applying knowledge gained from research on the housing needs of elderly persons on farms, our specialists have designed urban apartments for older people. These apartments reduce chances of falls and are adapted to the needs of persons with diminishing strength. Plans are available, too, for a two-level, five-bedroom house with basement fallout shelter, and two cabins suitable for beach, lake, or mountain retreats.

For the do-it-yourself fan, the Department can explain how to choose lumber for building an addition to the house, how to protect wood surfaces from decay and how often to paint them; also how to get rid of termites, ants, roaches, and other household pests.

We tell consumers how to improve their lawns, how to find out what will grow best in gardens, and how to control insects and disease in flowers or in garden vegetables.

Many of the grasses, vegetables, fruits, flowers, and shrubs that homeowners grow have been discovered, developed, or improved by our plant explorers and breeders. Last year our plant explorers brought back from Russia both wild and cultivated stocks of fruit highly resistant to cold and drought. A beautiful ornamental redwood tree from China, formerly believed to have been extinct for millions of years, will be available eventually to American homeowners.

Clothing

A decade ago, wool that could be machine-washed without shrinking was little more than a desire. So were stretchable wool and wool with permanent creases and pleats. Today, at least three garment manufacturers are turning out shrinkproof and matproof wool apparel, and three firms are making such yarn for knit goods, using the Wurlan process developed by Agricultural Research Service. The U.S. Quartermaster Corps has approved wool uniforms with permanent creases and pleats for the Armed Forces.

The research that made cotton lustrous, water-repellent, and resistant to rot, wrinkles, and flame has now made it stretchable and moldable. By using fabrics that can be molded into three-dimensional shapes, manufacturers will be able to cut costs and speed up production of hats, undergarments, shoes, upholstered furniture, and many other consumer items. Two new processes have produced all-cotton stretch socks that retain their stretch properties after more than 30 launderings.

Detergents

Agricultural research has developed new fat-based detergents. Scientists are working to make them competitive in price with detergents now on the market. If they succeed, we should be able to rid ourselves of much of the foam that now blankets some rivers and streams and in some places puts a head on a glass of water from the tap.

Other New Products

New construction materials made from agricultural products emerged from the laboratories during the year. A tough new plastic made of pine gum rosin is under development. New low-cost peroxides from crude pine gum are promising for use in the plastics and rubber industries. Vinyl plastics that stay flexible even at low temperatures were made from crambe, a new oilseed crop. New rigid polyether foams that cost less than presently used materials were developed from cereal starches. A superior glue for pine plywood was produced by adding a dialdehyde starch, made from corn, to conventional protein glues. Tung oil is one of the ingredients in a durable new fire-retardant paint. Linseed oil emulsions show promise for safe, low-cost use in curing concrete and protecting it against damage by freezing and thawing.

Protecting Health

The Department plays many roles in safeguarding the health and comfort of all citizens, both directly and indirectly. One of the most obvious illustrations is research that reduces cropland damage from duststorms, thus protecting all residents, urban as well as rural, in areas where the wind erosion hazard is high.

Safeguards Against Disease

Our controls over biological products used to prevent and treat animal diseases protect humans as well as pets and livestock. Some diseases,

such an anthrax, erysipelas, rabies, and brucellosis, can be transmitted to man.

During fiscal 1964, manufacturers destroyed more than 10 percent of 5 billion doses of biologics because ARS inspectors found the products impure, unsafe, or impotent.

Human cases of undulant fever, which ran to more than 6,000 less than 20 years ago, are now down to about 400 a year, due to a vigorous cooperative campaign to wipe out brucellosis. A major step toward final eradication of livestock tuberculosis—which humans can contract from cows' milk or other contact with infected cattle—was made by requiring animal identification and traceback to originating farms. This helps pinpoint reservoirs of both TB and brucellosis infection.

Our textile bacteriologists have found that normal home-type laundering may not destroy or prevent spread of many disease-producing organisms. They recommend use of laundry disinfectants, especially where there is sickness in the family.

Border and Port Inspection

Inspectors at U.S. ports and borders, constantly guarding against foreign pests of crops and livestock, examined nearly 32 million pieces of baggage for prohibited meats and plant products in fiscal 1964, a 52-percent increase since 1959. While allowing 654,000 animals to enter the United States from other countries, the inspectors rejected more than 23,500 for health reasons.

The second largest shipment of pure heroin ever intercepted in the United States was stopped in October 1963 at the Mexican border by an alert ARS plant quarantine inspector making a routine auto search.

Pesticides

The Department has responsibility for registering pesticides used to protect pets, livestock, and plants against insects, disease, and weeds. Many consumer materials receive the same rigid surveillance. These include germicides that keep kitchens, bathrooms, and swimming pools sanitary, and materials that purify drinking water, make a restaurant's glasses safe to drink from, and sterilize the combs and scissors in barber shops and beauty parlors.

During the fiscal year the Department reviewed and evaluated the composition and labeling of 5,227 new pesticides products and accepted them for registration. Revised regulations now require stricter labeling on pesticides containers. A new law eliminates "protest registration," which a few manufacturers used in the past to sell pesticides after being refused ARS registration.

Using improved scientific techniques that can detect chemical residues in minute concentrations, we have set up a pesticide monitoring program in the lower Mississippi River basin to determine levels of agricultural pesticides in soil, water, plants, and animals.

New Methods of Control

Our scientists, seeking alternate means of insect control, used reflective aluminum to divert aphids from plants, found that blue-green light at-

tracts boll weevils, and mass-produced two virus diseases that experimentally controlled cabbage loopers and corn earworms without harming anything else.

We are also experimenting with natural enemies of insect pests: A flea beetle from South America to aid in control of alligatorweed in waterways; a European moth that attacks only Scotch broom, a weed pest on the West Coast; and parasitic wasps to reduce alfalfa weevil damage in the eastern United States.

We are steadily adding to the list of insects from which we have extracted substances that attract the opposite sex of their species.

Attractants have now been found in *female* cabbage loopers and lesser peach borers. What is believed to be the first attractant ever obtained from *male* insects has been extracted from boll weevils. Combining the use of a sex attractant with an insecticide, scientists successfully eradicated the oriental fruitfly from the Pacific island of Rota.

The release of male screwworm flies sterilized with radioactive cobalt annihilated overwintering screwworms as far west as Arizona, and thus kept the Southeast free of this livestock pest for the first time in more than 30 years. This technique is now being tested against the cornborer.

Using chemicals to sterilize insects in the natural population is a promising variation of the male-sterility method.

Having devised a precise method of measuring chemosterilant potency, scientists estimate that, under laboratory conditions, 1 pound of chemosterilant can completely sterilize 500 million flies. Two new compounds were found to sterilize male houseflies in the laboratory with no toxic effect on them. Field tests of chemosterilants have been begun in Africa against the tsetse fly and in Mexico against the Mexican fruitfly.

4–H—Learning for Living

We have referred several times to various aspects of USDA's educational function. Another important aspect of this function is our work with American youth through the 4-H Club program. Some 2¼ million young people in 95,000 4-H Clubs in the United States receive guidance and training in leadership, cooperation, good citizenship, and farm and homemaking skills from 367,000 volunteer adult leaders. Literature and other training aids prepared by the Cooperative Extension Service provide much of the "know-how" material.

More than 240,000 4-H members were enrolled in specific citizenship projects in 1964. It is more than book learning.

The Bowie Boosters 4–H Club of Simpson County, Miss., led a drive to secure a sanitary landfill for trash disposal in their community. Wisconsin's 4–H Community Builders had a wide variety of accomplishments—developing community ball parks and picnic areas, improving and caring for neglected cemeteries, removing roadside brush to improve visibility at intersections, putting up road signs and preparing maps for fire departments.

Citizenship was a major focus of 4-H events in Massachusetts also, with the theme "Liberty and the Law." Four statewide events, public speaking contests, community service activities, and 4-H members' discussions with their local government officials all emphasized aspects of citizenship.

In addition, the international dimension of citizenship was experienced directly by over 200 boys and girls. They learned about people in other

lands by living with families abroad through the International Farm Youth Exchange Program.

Serving Consumers Through Recreational Facilities

As we pointed out in speaking of the rural renaissance, "country" recreation is fast becoming an important facet of rural development. Such recreation is also eagerly sought by a rapidly increasing proportion of the American public.

The USDA has charge of the Nation's biggest and most popular outdoor playground: The 186 million acres of National Forest lands. In 1964, about 135 million visits were made to the National Forests for camping, boating, picnicking, hunting, fishing, hiking, riding, and similar recreation—compared with 40 million a decade earlier.

Hunters and fishermen numbered in the millions will testify that wildlife and fish are among the important products of our National Forests. A 12-percent increase in hunter visits to the forests and a 7-percent increase by fishermen brought the 1964 total of sportsman visits to about 28 million. Year by year more and more sportsmen take to the forests.

Forest fishing waters, largely at higher elevations, produce a big proportion of our trout and other cold water game fish, plus much of the annual crop of young salmon. The forests also account for about one-third of the total harvest of big game animals in the United States. About 663,000 big game animals were taken from an estimated population of 4.5 million on the National Forests in 1964.

There is at least one National Forest within a day's drive of practically any point in the United States. In them are delightful campgrounds, picnic areas, and swimming sites. It would take a full lifetime of year-round camping—more than 75 years—to visit all of the National Forests and spend just a few days in each campground.

Few persons are aware of the size of the job involved in administering, protecting, and improving the National Forests. Here are a few indications.

To protect this "people's playground," USDA's Forest Service operates the world's biggest and most modern fire department. Fighting an average of 1,000 fires a month, it uses, besides the conventional water pumping trucks, bulldozers, sandcasting machines, patrol planes, chemical carrying air tankers, and helicopters. Its "smoke jumpers" are world famous.

Over 100,000 miles of hiking trails and 200,000 miles of road provide access to these playground acres. They must be maintained and improved, and new trails, roads, and bridges must be constructed.

The 6,400 camp or picnic units of the National Forests can now accommodate about 400,000 persons at one time. In addition, there are 239 swimming sites, about 196 winter sports sites, 575 organization camps, 2,215 summer home sites with 19,000 summer cottages, and more than 400 resorts to service forest visitors.

Four hundred new camp or picnic grounds were built during fiscal 1964 providing 7,600 additional family units.

Big as they are, however, the National Forests provide nowhere near all of the out-of-town recreation areas that are needed. While it is true that there is a Forest within a day's drive of almost any point in the Nation, still most of these areas are located where most of the people

are not. One-sixth of the National Forests is in Alaska. Some 70 percent of the remainder is in the West, where only 15 percent of the people live.

Studies show that on the average, Americans will travel only about 35 miles to reach a recreational spot for a 1-day outing, and about 150 miles round trip for a weekend. Even on vacations, one out of two will seek recreation areas only 1 to 2 days from home.

There is a great need for close-by recreation facilities. Consequently, as we mentioned in the rural renaissance section, USDA asissts farmers or groups of rural residents to develop all types of recreation facilities—from golf courses, dude ranches, and farm vacation camps to fishing ponds and hunting preserves.

Since the Food and Agriculture Act in 1962 authorized the Department to assist farmers in recreation development, we estimate that we have helped more than 20,000 farmers establish recreation projects on part or all of their land. This serves jointly our farm and rural people and the ever-expanding consumer need for outdoor recreational facilities close at hand.

Protecting Our People in a National Emergency

The U. S. Department of Agriculture has a major responsibility for civilian defense. In the event of a nuclear attack it would be necessary for our people to exist for a time on stocks of food currently available in the home, retail stores, wholesale establishments, and in supplies of food located in distribution channels before the wholesale level. It would also be necessary for our farmers to protect their livestock and feed supplies and to know how to resume production as quickly and effectively as possible after attack.

The Department has established more than 5,700 monitoring stations throughout the United States and has trained 18,000 employees to measure radiation levels. In an emergency Forest Service monitors would decide whether radiation levels in an area were low enough to permit entry of fire-fighting personnel. Soil Conservation Service employees would determine when it is safe to resume farming operations. Meat and poultry inspectors would ascertain whether meat is contaminated by radiation.

The Department, in short, has been assigned responsibility, in time of defense emergency, for the production, processing, storage, and distribution of food through the wholesale level; for guarding against fire damage in country areas; and for determining the need for stockpiling food.

Prior to 1964, U.S. State and county defense boards had been established to continue agricultural emergency operations and take emergency control of wholesale food supplies to service the needs of local authorities. Agreements had been completed with all the States, the District of Columbia, Puerto Rico, and the Virgin Islands defining emergency food management responsibilities.

The Cooperative Extension Service has carried out a rural Civil Defense educational program to help rural residents (those on farms, or nonfarm people in towns up to 10,000) understand the dangers, learn how to protect themselves, and recover in case of atomic attack or other emergencies. Such education proved its value many times in recent months as victims of floods, hurricanes, earthquake, tornadoes, and forest and range fires adjusted to emergency conditions.

During the 1964 fiscal year the various USDA agencies continued to expand and extend their capability to protect our people in a civil defense emergency. The Forest Service, for example, assisted in training rural firefighting groups in Colorado, Florida, Kentucky, Missouri, and Oregon.

Would Enough Food Be Available?

At the request of the Office of Civilian Defense, we completed a study on "Food Supplies Available by Counties in Case of a National Emergency." The study showed that for the Nation as a whole all food stocks available (as of January, when stocks are at their maximum) could last for roughly 4 months, if distributed equally and consumed sparingly. The amount of food estimated to be available in homes, on the average, would last a little less than 2 weeks. Retail food stores could provide about an additional 2 weeks' supply, and wholesale establishments another 2 weeks' supply. A little over 80 days of food supply was located in distribution channels before the wholesale level, such as in food processing and cold storage plants.

It is assumed that a 90-day period might be required for the food industry to recover from an attack and to resume the supply of food. On this basis, there would seem to be ample total food supplies for the United States as a whole to meet the requirements of the civilian population *if distribution did not break down.*

Our findings reveal, however, that in seven States, the District of Columbia, and over two-fifths of the counties in the United States supplies on hand were not adequate for a 90-day period, even if food were consumed at the sparse level of 2,000 calories per day. Major deficits would occur in parts of New England. the central Appalachian region, and the trading areas of Washington, D. C., Pittsburg, Cleveland, Dayton. Detroit, Miami, Mobile, Los Angeles, and San Diego. In addition, some of the less densely populated parts of the country would be in a deficit position.

In all these areas additional food supplies would need to be shipped in long before the end of the 90-day period to maintain the population, even on an austere diet. If transportation were seriously disrupted, many counties, or trading areas would be short of food after the first 20 to 30 days.

To cope with this problem the Department is studying the feasibility of repositioning some food stockpiles as well as conducting further educational and promotional activities to encourage additional emergency stockpiling of food in the home.

When the U. S. Department of Agriculture was first established back in 1862, President Abraham Lincoln called it "the people's department," because, he said, perhaps more than any other agency of government, it was to be in direct contact with the people. The USDA providing over 50 separate categories of services for the American consumer remains today what it started out to be: The People's Department.

EPILOG

The future of the American farmer depends on what he and we do with agricultural abundance. The farmer does not stand alone. The 14 out of 15 Americans who are not farmers also have a vital stake in the answers to the challenge of living with agricultural superabundance.

There is no doubt but that given continued peace, we have now, and will have even more in the future, resources aplenty to meet the changing needs of our people at home as well as any reasonable demands upon us from abroad. Heretofore this was always the paramount question in any human society anywhere on earth—how to produce *enough*.

The question being asked us today is different: It is whether we possess the conviction and stamina to commit ourselves to the wise use of our abundance—whether we are at last prepared to recognize that if we have the will, we can achieve a life and a society of new and greater dimensions than this earth has yet seen.

Truly the challenge of our generation in the next third of a century is "whether we have the wisdom to use the wealth to enrich and elevate our national life—and to advance the quality of American civilization"—not for ourselves alone but for all mankind.